

References

- Abe, M., Kitoh, A. and Yasunari, T. (2003) An evolution of the Asian summer monsoon associated with mountain uplift – simulation with the MRI atmosphere-ocean coupled GCM. *J. Meteor. Soc. Japan*, **81**, 909–933.
- Abram, N. J., Gagan, M. K., Liu, Z., Hantoro, W. S., McCulloch, M. T. and Suwargadi, B. W. (2007) Seasonal characteristics of the Indian Ocean Dipole during the Holocene epoch. *Nature*, **445**, 299–302.
- Agnihotri, R., Dutta, K., Bhushan, R. and Somayajulu, B. L. K. (2002) Evidence for solar forcing on the Indian monsoon during the last millennium. *Earth Planet. Sci. Lett.*, **198**, 521–527.
- Aitchison, J. C., Ali, J. R. and Davis, A. M. (2007) When and where did India and Asia collide? *J. Geophys. Res.*, **112**, B05423, doi: 10.1029/2006JB004706.
- Alam, M. and Subrahmanyam, S. (1998) *The Mughal state, 1526–1750*. Delhi, India: Oxford University Press, p. 455.
- Albright, W. F. (1944) Ur excavations, vol. V: the Ziggurat and its surroundings. *American J. Archaeol.*, **48**, 303–305.
- Ali, J. R. and Aitchison, J. C. (2005) Greater India. *Earth Sci. Rev.*, **72**, 169–188.
- Alley, R. B., Meese, D. A., Shuman, C. A. *et al.* (1993) Abrupt increase in Greenland snow accumulation at the end of the Younger Dryas event. *Nature*, **362**, 527–529.
- Altabet, M. A., Francois, R., Murray, D. W. and Prell, W. L. (1995) Climate-related variations in denitrification in the Arabian Sea from sediment $^{15}\text{N}/^{14}\text{N}$ ratios. *Nature*, **373**, 506–509.
- Altabet, M. A., Murray, D. W. and Prell, W. L. (1999) Climatically linked oscillations in Arabian Sea denitrification over the past 1 m.y.: implications for the marine N cycle. *Paleoceanography*, **14**, 732–743.
- Altabet, M. A., Higginson, M. J. and Murray, D. W. (2002) The effect of millennial-scale changes in Arabian Sea denitrification on atmospheric CO_2 . *Nature*, **415**, 159–162.
- An, C.-B., Feng, Z. and Tang, L. (2004) Environmental change and cultural response between 8000 and 4000 cal. yr BP in the western Loess Plateau, north-west China. *J. Quat. Sci.*, **19**, 529–535.

- An, C.-B., Tang, L., Barton, L. and Chen, F. H. (2005) Climate change and cultural response around 4000 cal yr B. P. in the western part of Chinese Loess Plateau. *Quat. Res.*, **63**, 347–352.
- An, Z. (1991) Radiocarbon dating and the prehistoric archaeology of China. *World Archaeol.*, **23**, 193–200.
- An, Z., Kukla, G. J., Porter, S. C. and Xiao, J. (1991) Magnetic susceptibility evidence of monsoon variation on the Loess Plateau of central China during the last 130 000 years. *Quat. Res.*, **36**, 29–36.
- An, Z. S., Porter, S. C., Chappell, J. *et al.* (1994) The Luochuan loess sequence over the past 130 ka and records of the Greenland ice cores. *Chinese Sci. Bull.*, **39**, 182–184.
- An, Z., Kutzbach, J. E., Prell, W. L. and Porter, S. C. (2001) Evolution of Asian monsoons and phased uplift of the Himalaya-Tibetan plateau since Late Miocene times. *Nature*, **411**, 62–66.
- Anand, P., Elderfield, H. and Conte, M. H. (2003) Calibration of Mg/Ca thermometry in planktonic foraminifera from a sediment trap time series. *Paleoceanography*, **18**, 1050, doi: 10.1029/2002PA000846.
- Anderson, D. M. and Prell, W. L. (1993) A 300 kyr record of upwelling off Oman during the late Quaternary: evidence of the Asian south-west monsoon. *Paleoceanography*, **8**, 193–208.
- Anderson, D. M., Brock, J. C. and Prell, W. L. (1992) Physical upwelling processes, upper ocean environment and the sediment record of the south-west monsoon. In *Upwelling Systems; Evolution Since the Early Miocene*, ed. C. P. Summerhayes, W. L. Prell and K. C. Emeis. London: Geol. Soc. Lond., Spec. Publ., vol. **64**, pp. 121–129.
- Anderson, D. M., Overpeck, J. T. and Gupta, A. K. (2002) Increase in the Asian south-west monsoon during the past four centuries. *Science*, **297**, 596–599.
- Andersson, J. G. (1923) Essays on the Cenozoic of northern China. *Mem. Geol. Surv. China, Ser. A*, **3**, 1–152.
- Ashrit, R. G., Kumar, K. R. and Kumar, K. K. (2001) ENSO-monsoon relationships in a greenhouse warming scenario. *Geophys. Res. Lett.*, **28**, 1727–1730.
- Audley-Charles, M. G. (2004) Ocean trench blocked and obliterated by Banda forearc collision with Australian proximal continental slope. *Tectonophysics*, **389**, 65–79.
- Axelrod, D. I. (1980) Estimating altitudes of Tertiary forests. In *Proceedings of Symposium on Qinghai-Zizang (Tibet) Plateau*, Beijing, China: Academica Sinica, 0–2.
- Barber, D. C., Dyke, A., Hillaire, M. C. *et al.* (1999) Forcing of the cold event of 8 200 years ago by catastrophic drainage of Laurentide lakes. *Nature*, **400**, 344–348.
- Bard, E., Hamelin, B., Arnold, M. *et al.* (1996) Deglacial sea-level record from Tahiti corals and the timing of global meltwater discharge. *Nature*, **382**, 241–244.
- Bassinot, F. C., Labeyrie, L. D., Vincent, E. *et al.* (1994) The astronomical theory of climate and the age of the Brunhes-Matuyama magnetic reversal. *Earth Planet. Sci. Lett.*, **126**, 91–108.
- Beaumont, C., Jamieson, R. A., Nguyen, M. H. and Medvedev, S. (2004) Crustal channel flows: 1. Numerical models with applications to the tectonics of the Himalayan-Tibetan orogen. *J. Geophys. Res.*, **109**, B06406, doi: 10.1029/2003JB002809.

- Béchenec, F., Le Métour, J., Platel, J. P. and Roger, J. (1993) *Explanatory notes to the geological map of the Sultanate of Oman*. Muscat, Oman: Directorate General of Minerals, Oman Ministry of Petroleum and Minerals, p. 93.
- Bettinger, R. L., Barton, L., Richerson, P. J. *et al.* (2007) The transition to agriculture in North-western China. In *Late Quaternary Climate Change and Human Adaptation in Arid China*, ed. D. B. Madsen, F. Chen and X. Gao, Amsterdam: Elsevier, Develop. Quat. Sci., vol. 9, pp. 83–101.
- Bhattacharya, A. (1989) Vegetation and climate during the last 30 000 years in Ladakh. *Palaeogeog., Palaeoclimat., Palaeoeco.*, **73**, 25–38.
- Bird, M. I. and Cali, J. A. (1998) A million-year record of fire in sub-Saharan Africa. *Nature*, **394**, 767–769.
- Bird, P. (1978) Initiation of intracontinental subduction in the Himalaya. *J. Geophys. Res.*, **83**, 4975–4987.
- Biscaye, P. E. (1965) Mineralogy and sedimentation of Recent deep-sea clay in the Atlantic Ocean and adjacent seas and oceans. *Geol. Soc. Amer. Bull.*, **76**, 803–831.
- Blisniuk, P. M., Hacker, B. R., Glodny, J. *et al.* (2001) Normal faulting in central Tibet since at least 13.5 Myr ago. *Nature*, **412**, 628–632.
- Bohren, C. F. and Albrecht, B. A. (1998) *Atmospheric Thermodynamics*, Oxford: Oxford University Press, p. 404.
- Bond, G. C., Heinrich, H., Broecker, W. S. *et al.* (1992) Evidence for massive discharges of icebergs into the North Atlantic ocean during the last glacial period. *Nature*, **360**, 245–249.
- Bond, G., Showers, W., Cheseby, M. *et al.* (1997) A pervasive millennial-scale cycle in North Atlantic Holocene and glacial climates. *Science*, **278**, 1257–1266.
- Bond, G., Kromer, B., Beer, J. *et al.* (2001) Persistent solar influence on North Atlantic Climate during the Holocene. *Science*, **294**, 2130–2136.
- Bookhagen, B. and Burbank, D. W. (2006) Topography, relief and TRMM-derived rainfall variations along the Himalaya. *Geophys. Res. Lett.*, **33**, L08405, doi: 10.1029/2006GL026037.
- Bookhagen, B., Thiede, R. C. and Strecker, M. R. (2005a) Late Quaternary intensified monsoon phases control landscape evolution in the north-west Himalaya. *Geology*, **33**, 149–152.
- Bookhagen, B., Thiede, R. C. and Strecker, M. R. (2005b) Abnormal monsoon years and their control on erosion and sediment flux in the high, arid north-west Himalaya. *Earth Planet. Sci. Lett.*, **231**, 131–146.
- Brass, G. W. and Raman, C. V. (1991) Clay mineralogy of sediments from the Bengal Fan. *Proc. Ocean Drill. Prog., Sci. Res.*, ed. J. R. Cochran, D. A. V. Stow *et al.*, 116, College Station, TX: Ocean Drilling Program, pp. 35–42.
- Bray, H. E. and Stokes, S. (2004) Temporal patterns of arid-humid transitions in the south-eastern Arabian Peninsula based on optical dating. *Geomorph.*, **59**, 271–280.
- Broecker, W. S. (1994) Massive iceberg discharges as triggers for global climate change. *Nature*, **372**, 421–424.

- Brookfield, M. E. (1998) The evolution of the great river systems of southern Asia during the Cenozoic India-Asia collision; rivers draining southwards. *Geomorph.*, **22**, 285–312.
- Bryson, R. A. and Swain, A. M. (1981) Holocene variations of monsoon rainfall in Rajasthan. *Quat. Res.*, **16**, 135–145.
- Bull, J. M. and Scrutton, R. A. (1990) Fault reactivation in the central Indian Ocean and the rheology of oceanic lithosphere. *Nature*, **344**, 855–858.
- Bull, J. M. and Scrutton, R. A. (1992) Seismic reflection images of intraplate deformation, central Indian Ocean and their tectonic significance. *J. Geol. Soc.*, **149**, 955–966.
- Burbank, D. W., Derry, L. A. and France-Lanord, C. (1993) Reduced Himalayan sediment production 8 Myr ago despite an intensified monsoon. *Nature*, **364**, 48–50.
- Burbank, D. W., Blythe, A. E., Putkonen, J. *et al.* (2003) Decoupling of erosion and precipitation in the Himalayas. *Nature*, **426**, 652–655.
- Burchfiel, B. C., Chen, Z., Hodges, K. V. *et al.* (1992) *The South Tibetan Detachment System, Himalayan Orogen: Extension Contemporaneous With and Parallel to Shortening in a Collisional Mountain Belt*. Boulder, CO: Geological Society of America, Geol. Soc. Amer. Spec. Paper, **269**, p. 41.
- Burg, J. P., Proust, F., Tapponnier, P. and Chen, G. M. (1983) Deformation phases and tectonic evolution of the Lhasa Block (southern Tibet, China). *Ecol. Geol. Helv.*, **76**, 643–665.
- Burns, S. J. and Matter, A. (1995) Geochemistry of carbonate cements in surficial alluvial conglomerates and their paleoclimatic implications, Sultanate of Oman. *J. Sed. Res.*, **65**, 170–177.
- Burns, S. J., Matter, A., Frank, N. and Mangini, A. (1998) Speleothem-based paleoclimate record from northern Oman. *Geology*, **26**, 499–502.
- Burns, S. J., Fleitmann, D., Mudelsee, M. *et al.* (2002) 780-year annually resolved record of Indian Ocean monsoon precipitation from a speleothem from South Oman. *J. Geophys. Res.*, **107**, 20, 4434.
- Burns, S. J., Fleitmann, D., Matter, A., Kramers, J. and Al-Subbary, A. A. (2003) Indian Ocean climate and an absolute chronology over Dansgaard/Oeschger events 9 to 13. *Science*, **301**, 1365–1367.
- Bush, A. B. G. (2004) Modeling of late Quaternary climate over Asia: a synthesis. *Boreas*, **33**, 155–163.
- Calvache-Archila, J. and Love, C. (2001) Structural provinces in the northern Sohar Basin, offshore Oman. *Abstr. Int. Conf. Geol. Oman*, Muscat, Oman: Oman Ministry of Commerce, p. 27.
- Camoin, G. F., Montaggioni, L. F. and Braithwaite, C. J. R. (2004) Late glacial to post glacial sea levels in the western Indian Ocean. *Mar. Geol.*, **206**, 119–146.
- Cane, M. A. (1998) A role for the tropical Pacific. *Science*, **282**, 60–61.
- Cane, M. A. and Molnar, P. (2001) Closing of the Indonesian seaway as a precursor to East African aridification around 3–4 million years ago. *Nature*, **411**, 157–162.
- Cerling, T. E., Wang, Y. and Quade, J. (1993) Expansion of C4 ecosystems as an indicator of global ecological change in the late Miocene. *Nature*, **361** (6410), 344–345.

- Cerling, T. E., Harris, J. M., MacFadden, B. J. *et al.* (1997) Global vegetation change through the Miocene/Pliocene boundary. *Nature*, **38**, 153–158.
- Chakraborty, A., Nanjundiah, R. S. and Srinivasan, J. (2002) Role of Asian and African orography in Indian summer monsoon. *Geophys. Res. Lett.*, **29**, doi: 10.1029/2002GL015522.
- Chen, J., Farrell, J. W., Murray, D. W. and Prell, W. L. (1995) Timescale and paleoceanographic implications of a 3.6 Ma oxygen isotope record from the north-east Indian Ocean (Ocean Drilling Program Site 758). *Paleoceanography*, **10**, 21–48.
- Chen, J., Zheng, L., Wiesner, M. G. *et al.* (1998) Estimations of primary production and export production in the South China Sea based on sediment trap experiments. *China Sci. Bull.*, **43**, 583–586.
- Chen, J., An, Z. S. and Head, J. (1999) Variation of Rb/Sr ratios in the loess-paleosol sequences of central China during the last 130 000 years and their implications for monsoon paleoclimatology. *Quat. Res.*, **51**, 215–219.
- Chen, K. T. and Hiebert, F. T. (1995) The late prehistory of Xinjiang in relation to its neighbors. *J. World Prehist.*, **9**, 243–300.
- Chen, M., Wang, R., Yang, L., Han, J. and Lu, J. (2003) Development of East Asian summer monsoon environments in the late Miocene; radiolarian evidence from Site 1143 of ODP Leg 184. *Mar. Geol.*, **201**, 169–177.
- Chen, M.-T. and Huang, C. Y. (1998) Ice-volume forcing of winter monsoon climate in the South China Sea. *Paleoceanography*, **13**, 622–633.
- Cheng, H., Edwards, R. L., Wang, Y. *et al.* (2006) A penultimate glacial monsoon record from Hulu Cave and two-phase glacial terminations. *Geology*, **34**, 217–220.
- Chou, C. and Neelin, J. D. (2001) Mechanisms limiting the southward extent of the South American summer monsoon. *Geophys. Res. Lett.*, **28**, 2433–2436.
- Chou, C., Neelin, J. D. and Su, H. (2001) Ocean-atmosphere-land feedbacks in an idealized monsoon. *Quart. J. R. Meteor. Soc.*, **127**, 1869–1891.
- Chu, P. C. and Li, R. (2000) South China Sea isopycnal-surface circulation. *J. Phys. Ocean.*, **30**, 2419–2438.
- Chung, S. L., Lo, C. H., Lee, T. Y. *et al.* (1998) Diachronous uplift of the Tibet Plateau starting 40 Myr ago. *Nature*, **394**, 769–773.
- Clark, C. O., Cole, J. E. and Webster, P. J. (2000) Indian Ocean SST and Indian summer rainfall: predictive relationships and their decadal variability. *J. Clim.*, **13**, 2503–2519.
- Clark, M. K. and Royden, L. H. (2000) Topographic ooze; building the eastern margin of Tibet by lower crustal flow. *Geology*, **28**, 703–706.
- Clark, M. K., Schoenbohm, L. M., Royden, L. H. *et al.* (2004) Surface uplift, tectonics, and erosion of Eastern Tibet from large-scale drainage patterns. *Tectonics*, **23**, TC1006, doi: 10.1029/2002TC001402.
- Clark, M. K., House, M. A., Royden, L. H. *et al.* (2005) Late Cenozoic uplift of south-eastern Tibet. *Geology*, **33**, 525–528.
- Clemens, S. C. and Prell, W. L. (1990) Late Pleistocene variability of Arabian Sea summer monsoon winds and continental aridity; Eolian records from the lithogenic component of deep-sea sediments. *Paleoceanography*, **5**, 109–145.

- Clemens, S. C. and Prell, W. L. (2003) Data report: preliminary oxygen and carbon isotopes from site 1146, northern South China Sea. *Proc. Ocean Drill. Prog., Sci. Res.*, **184**, 1–8 (online).
- Clemens, S. C. and Prell, W. L. (2007) The timing of orbital-scale Indian monsoon changes. *Quat. Sci. Rev.*, **26**, 275–278.
- Clemens, S. C., Prell, W., Murray, D., Shimmield, G. and Weedon, G. (1991) Forcing mechanisms of the Indian Ocean monsoon. *Nature*, **353**, 720–725.
- Clemens, S. C., Murray, D. W. and Prell, W. L. (1996) Nonstationary phase of the Plio-Pleistocene Asian monsoon. *Science*, **274**, 943–948.
- Clift, P. D., Giosan, L., Blusztajn, J. *et al.* (2008) Holocene erosion of the Lesser Himalaya triggered by intensified summer monsoon. *Geology*, **36**, 79–82.
- Clift, P. D. (2006) Controls on the erosion of Cenozoic Asia and the flux of clastic sediment to the ocean. *Earth Planet. Sci. Lett.*, **241**, 571–580.
- Clift, P. D. and Blusztajn, J. (2005) Re-organization of the western Himalayan river system after five million years ago. *Nature*, **438**, 1001–1003.
- Clift, P. D., Lee, J. I., Blusztajn, J. and Clark, M. K. (2002a) Erosional response of South China to arc rifting and monsoonal strengthening recorded in the South China Sea. *Mar. Geol.*, **184**, 207–226.
- Clift, P. D., Gaedicke, C., Edwards, R. *et al.* (2002b) The stratigraphic evolution of the Indus Fan and the history of sedimentation in the Arabian Sea. *Mar. Geophys. Res.*, **23**, 223–245.
- Clift, P. D., Lee, J. I., Hildebrand, P. *et al.* (2002c) Nd and Pb isotope variability in the Indus River system: implications for sediment provenance and crustal heterogeneity in the Western Himalaya. *Earth Planet. Sci. Lett.*, **200**, 91–106.
- Clift, P. D., Layne, G. D. and Blusztajn, J. (2004) The erosional record of Tibetan uplift in the East Asian marginal seas. In *Continent-Ocean Interactions in the East Asian Marginal Seas*, ed. P. D. Clift, P. Wang, D. Hayes, W. Kuhnt. *Amer. Geophys. Union, monogr.*, **149**, 255–282.
- Clift, P. D., Blusztajn, J. and Nguyen, D. A. (2006a) Large-scale drainage capture and surface uplift in Eastern Tibet before 24 Ma. *Geophys. Res. Lett.*, **33**, L19403, doi: 10.1029/2006GL027772.
- Clift, P. D., Carter, A., Campbell, I. H. *et al.* (2006b) Thermochronology of mineral grains in the Song Hong and Mekong Rivers, Vietnam. *Geophys., Geochem., Geosyst.*, **7**, Q10005, doi: 10.1029/2006GC001336.
- Cline, J. D. and Kaplan, I. R. (1975) Isotopic fractionation of dissolved nitrate during denitrification in the Eastern Tropical North Pacific Ocean. *Mar. Chem.*, **3**, 271–299.
- Cochran, J. R. (1990) Himalayan uplift, sea level, and the record of Bengal Fan sedimentation at the ODP leg 116 sites. *Proc. Ocean Drill. Prog., Sci. Res.*, **116**, 397–414.
- Coleman, M. and Hodges, K. (1995) Evidence for Tibetan plateau uplift before 14 Myr ago from a new minimum age for east-west extension. *Nature*, **374**, 49–52.
- Colin, C., Turpin, L., Bertaux, J., Desprairies, A. and Kissel, C. (1999) Erosional history of the Himalayan and Burman ranges during the last two glacial-interglacial cycles. *Earth Planet. Sci. Lett.*, **171**, 647–660.

- Conkright, M., Levitus, S., O'Brien, T. *et al.* (1998) *World Ocean Atlas 1998*, CD-ROM data set documentation, tech. rep. 15. Silver Spring, MD: National Oceanographic Data Center, p. 16.
- Conte, M. H. and Weber, J. C. (2002) Plant biomarkers in aerosols record isotopic discrimination of terrestrial photosynthesis. *Nature*, **417**, 639–641.
- Cook, E. R., D'Arrigo, R. D. and Briffa, K. R. (1998) A reconstruction of the North Atlantic oscillation using tree-ring chronologies from North America and Europe. *Holocene*, **8**, 9–17.
- Cook, E. R., Woodhouse, C., Eakin, C. M., Meko, D. M. and Stahle, D. W. (2004) Long-term aridity changes in the western United States. *Science*, **306**, 1015–1018.
- Copeland, P., Harrison, T. M., Kidd, W. S. F., Xu R. and Zhang Y. (1987) Rapid Miocene acceleration of uplift in the Gangdese belt, Xizang (southern Tibet), and its bearing on accommodation mechanisms of the India-Asia collision. *Earth Planet. Sci. Lett.*, **86**, 240–252.
- Cullen, H. M., deMenocal, P. B., Hemming, S. *et al.* (2000) Climate change and the collapse of the Akkadian empire: evidence from the deep sea. *Geology*, **28**, 379–382.
- Curray, J. R. (1994) Sediment volume and mass beneath the Bay of Bengal. *Earth Planet. Sci. Lett.*, **125**, 371–383.
- Curray, J. R. and Moore, D. G. (1971) Growth of the Bengal deep-sea fan and denudation in the Himalayas. *Geol. Soc. Amer. Bull.*, **82**, 563–572.
- Curray, J. R., Emmel, F. J. and Moore, D. G. (2003) The Bengal Fan: morphology, geometry, stratigraphy, history and processes. *Mar. Petrol. Geol.*, **19**, 1191–1223.
- Currie, B. S., Rowley, D. B. and Tabor, N. J. (2005) Middle Miocene paleoaltimetry of southern Tibet; implications for the role of mantle thickening and delamination in the Himalayan Orogen. *Geology*, **33**, 181–184.
- Curry, W. B., Ostermann, D. R., Guptha, M. V. S. and Ittekkot, V. (1992) Foraminiferal production and monsoonal upwelling in the Arabian Sea; evidence from sediment traps. In *Upwelling Systems; Evolution Since the Early Miocene*, ed. C. P. Summerhayes, W. L. Prell and K. C. Emeis, *Geol. Soc. Lond., Spec. Publ.*, **64**, 93–106.
- Dadson, S., Hovius, N., Chen, H. *et al.* (2003) Links between erosion, runoff variability and seismicity in the Taiwan orogen. *Nature*, **426**, 648–651.
- Dahl, K. A. and Oppo, D. W. (2006) Sea-surface temperature pattern reconstructions in the Arabian Sea. *Paleoceanography*, **21**, PA1014, doi: 10.1029/2005PA001162.
- Dannenmann, S., Linsley, B. K., Oppo, D. W., Rosenthal, Y. and Beaufort, L. (2003) East Asian monsoon forcing of suborbital variability in the Sulu Sea during Marine Isotope Stage 3; link to Northern Hemisphere climate. *Geochem., Geophys., Geosyst.*, **4**, 1, doi: 10.1029/2002GC000390.
- Dansgaard, W., Johnsen, S. J., Clausen, H. B. *et al.* (1993) Evidence for general instability of past climate from a 250-kyr ice-core record. *Nature*, **364**, 218–220.
- Davies, T. A., Kidd, R. B. and Ramsay, A. T. S. (1995) A time-slice approach to the history of Cenozoic sedimentation in the Indian Ocean. *Sed. Geol.*, **96**, 157–179, 1995.
- DeCelles, P. G., Robinson, D. M., Quade, J. *et al.* (2001) Stratigraphy, structure and tectonic evolution of the Himalayan fold-thrust belt in western Nepal. *Tectonics*, **20**, 487–509.

- deMenocal, P. B. (2001) Cultural responses to climate change during the late Holocene. *Science*, **292**, 667–673.
- deMenocal, P. B., Ortiz, J., Guilderson, T. and Sarnthein, M. (2000) Coherent high- and low-latitude climate variability during the Holocene warm period. *Science*, **288**, 2198–2202.
- Dercourt, J., Ricou, L. E. and Vrielinck, B. eds., (1993) *Atlas Tethys Palaeoenvironmental Maps*, Paris: Gauthier-Villars, pp. 1–307.
- Derry, L. A. and France-Lanord, C. (1996) Neogene Himalayan weathering history and river $^{87}\text{Sr}/^{86}\text{Sr}$: impact on the marine Sr record. *Earth Planet. Sci. Lett.*, **142**, 59–76.
- Derry, L. A. and France-Lanord, C. (1997) Himalayan weathering and erosion fluxes; climate and tectonic controls. In *Tectonic Uplift and Climate Change*, ed. W. F. Ruddiman, New York: Plenum Press, pp. 289–312.
- Dettman, D. L., Kohn, M. J., Quade, J. *et al.* (2001) Seasonal stable isotope evidence for a strong Asian monsoon throughout the past 10.7 m.y. *Geology*, **29**, 31–34.
- Dettman, D. L., Fang, X., Garzzone, C. N. and Li, J. (2003) Uplift-driven climate change at 12 Ma; a long $\delta^{18}\text{O}$ record from the NE margin of the Tibetan Plateau. *Earth Planet. Sci. Lett.*, **214**, 267–277.
- Dickson, R. R. and Brown, J. (1994) The production of North Atlantic Deep Water: sources, rates, and pathways. *J. Geophys. Res.*, **99**, 12 319–12 342.
- Ding, L., Kapp, P., Zhong, D. and Deng, W. (2003) Cenozoic volcanism in Tibet; evidence for a transition from oceanic to continental subduction. *J. Petrol.*, **44**, 1833–1865.
- Ding, Z., Liu, T., Rutter, N. W. *et al.* (1995) Ice-volume forcing of East Asian winter monsoon variations in the past 800 000 years. *Quat. Res.*, **44**(2), 149–159.
- Ding, Z. L., Sun, J. M., Liu, T. S. *et al.* (1998) Wind-blown origin of the Pliocene red clay formation in the central Loess Plateau, China. *Earth Planet. Sci. Lett.*, **161**(1–4), 135–143.
- Ding, Z. L., Xiong, S. F., Sun, J. M. *et al.* (1999) Pedostratigraphy and paleomagnetism of an approximately 7.0 Ma Eolian loess-red clay sequence at Lingtai, Loess Plateau, north-central China and the implications for paleomonsoon evolution. *Palaeogeog., Palaeoclim., Palaeoeco.*, **152**, 49–66.
- Ding, Z. L., Sun, J. M., Yang, S. L. and Liu, T. S. (2001) Geochemistry of the Pliocene red clay formation in the Chinese Loess Plateau and implications for its origin, source provenance and paleoclimate change. *Geochim. Cosmochim. Acta*, **65**, 901–913.
- Dokken, T. M. and Jansen, E. (1999) Rapid changes in the mechanism of ocean convection during the last glacial period. *Nature*, **401**, 458–461.
- Doose-Rolinski, H., Rogalla, U., Scheeder, G., Lückge, A. and von Rad, U. (2001) High-resolution temperature and evaporation changes during the late Holocene in the north-eastern Arabian Sea. *Paleoceanography*, **16**(4), 358–367.
- Duplessy, J. C. (1982) Glacial to interglacial contrasts in the northern Indian Ocean. *Nature*, **295**, 494–498.
- Edwards, R. L., Chen, J. H. and Wasserburg, G. J. (1987) ^{238}U - ^{234}U - ^{230}Th - ^{232}Th systematics and the precise measurement of time over the past 500 000 years. *Earth Planet. Sci. Lett.*, **81**, 175–192.

- Godfrey, J. S., Alexiou, A., Ilahude, A. G. *et al.* (1995) *The Role of the Indian Ocean in the Global Climate System: Recommendations Regarding the Global Ocean Observing System*. Report of the Ocean Observing System Development Panel, College Station, TX, USA: Texas A & M University, p. 89.
- Godin, L., Grujic, D., Law, R. D. and Searle, M. P. (2006) Channel flow, ductile extrusion and exhumation in continental collision zones: an introduction. In *Channel Flow, Ductile Extrusion and Exhumation in Continental Collision Zones*, ed. Law, R. D., Searle, M. P. and Godin, L. *Geol. Soc. Lond. Spec. Publ.*, **268**, 1–24.
- Gong, Z., Chen, H., Wang, Z., Cai, F. and Luo, G. (1987) The epigenetic geochemical types of loess in China. In *Aspects of Loess Research*, ed. T. Liu, Beijing: China Ocean Press, pp. 135–150.
- Goodbred, S. L. and Kuehl, S. A. (1999) Holocene and modern sediment budgets for the Ganges–Brahmaputra river system; evidence for highstand dispersal to flood-plain, shelf, and deep-sea depocenters. *Geology*, **27**, 559–562.
- Goodbred, S. L. and Kuehl, S. A. (2000) Enormous Ganges–Brahmaputra sediment discharge during strengthened early Holocene monsoon. *Geology*, **28**, 1083–1086.
- Gordon, A. L. (2001) Interocean Exchange. In *Ocean Circulation and Climate*, ed. G. Siedler, J. Church and J. Gould, London: Academic Press, pp. 303–314.
- Gordon, A. L. and Fine, R. A. (1996) Pathways of water between the Pacific and Indian oceans in the Indonesian seas. *Nature*, **379**, 146–149.
- Gordon, A. L., Susanto, R. D. and Vranes, K. (2003) Cool Indonesian throughflow as a consequence of restricted surface layer flow. *Nature*, **425**, 824–828.
- Green, P. F., Duddy, I. R., Laslett, G. M. *et al.* (1989) Thermal annealing of fission tracks in apatite: four quantitative modeling techniques and extension to geological timescales. *Chem. Geol.*, **79**, 155–182.
- Greenland Ice Sheet Project (1997) *The Greenland Summit ice cores*. (CD-ROM) Boulder, Colorado, University of Colorado, National Snow and Ice Data Center, and Boulder, Colorado, National Geophysical Data Center, World Data Center–A for Paleoclimatology, www.ngdc.noaa.gov/paleo/icecore/greenland/summit/index.html.
- Groote, P. M. and Stuiver, M. (1997) $^{18}\text{O}/^{16}\text{O}$ variability in Greenland snow and ice with 10^3 to 10^5 yr time resolution. *J. Geophys. Res.*, **102**, 26 455–26 470.
- Guillot, S., Hodges, K., Le Fort, P. and Pecher, A. (1994) New constraints on the age of the Manaslu leucogranite: evidence for episodic tectonic denudation in the central Himalayas. *Geology*, **22**, 559–562.
- Guo, Z. T., Ruddiman, W. F., Hao, Q. Z. *et al.* (2002) Onset of Asian desertification by 22 Myr ago inferred from loess deposits in China. *Nature*, **416**, 159–165.
- Gupta, A. K. (2004) Origin of agriculture and domestication of plants and animals linked to early Holocene climate amelioration. *Current Sci.*, **87**, 54–59.
- Gupta, A. K. and Thomas, E. (2003) Initiation of Northern Hemisphere Glaciation and strengthening of the North-east Indian monsoon; Ocean Drilling Program Site 758, eastern equatorial Indian Ocean. *Geology*, **31**, 47–50.
- Gupta, A. K., Anderson, D. M. and Overpeck, J. T. (2003) Abrupt changes in the Asian south-west monsoon during the Holocene and their links to the North Atlantic Ocean. *Nature*, **421**, 354–356.

- Gupta, A. K., Singh, R. K., Joseph, S. and Thomas, E. (2004) Indian ocean high-productivity event (10–8 Ma): linked to global cooling or to the initiation of the Indian monsoons? *Geology*, **32**, 753–756.
- Gupta A. K., Das, M. and Anderson, D. M. (2005) Solar influence on the Indian summer monsoon during the Holocene. *Geophys. Res. Lett.*, **32**, L17703, doi: 10.1029/2005GL022685.
- Gupta, S. M. (1999) Radiolarian monsoonal index Pylonud group responds to astronomical forcing in the last 500 000 years: evidence from the central Indian Ocean. *Mar Environ.*, **24**, 99–107.
- Gupta, S. P. (1995) *The Lost Sarasvati and the Indus Civilization*. Jodhpur, India: Kusumanjali Prakashan, p. 314.
- Hahn, D. G. and Manabe, S. (1975) The role of mountains in the south Asian monsoon circulation. *J. Atmos. Sci.*, **32**, 1515–1541.
- Hall, R. (2002) Cenozoic geological and plate tectonic evolution of SE Asia and the SW Pacific; computer-based reconstructions, model and animations. *J. Asian Earth Sci.*, **20**, 353–431.
- Haq, B. U., Hardenbol, J. and Vail, P. R. (1987) Chronology of fluctuating sea levels since the Triassic. *Science*, **235**, 1156–1167.
- Harada, N., Ahagon, N., Sakamoto, T. *et al.* (2006) Rapid fluctuation of alkenone temperature in the south-western Okhotsk Sea during the past 120 kyr. *Global Planet. Change*, **53**, 29–46.
- Harris, N. B. W. (2006) The elevation of the Tibetan Plateau and its impact on the monsoon. *Palaeogeog., Palaeoclim., Palaeoeco.*, **241**, 4–15.
- Harrison, T. M., Copeland, P., Kidd, W. S. F. and Yin, A. (1992) Raising Tibet. *Science*, **255**, 1663–1670.
- Harrison, T. M., Copeland, P., Hall, S. A. *et al.* (1993) Isotopic preservation of Himalayan/Tibetan uplift, denudation and climatic histories in two molasse deposits. *J. Geology*, **100**, 157–173.
- Harrison, T. M., Mahon, K. I., Guillot, S. *et al.* (1995) New constraints on the age of the Manaslu leucogranite; evidence for episodic tectonic denudation in the central Himalaya; discussion and reply. *Geology*, **23**, 476–480.
- Harzallah, A. and Sadourny, R. (1997) Observed lead–lag relationships between Indian summer monsoon and some meteorological variables. *Clim. Dyn.*, **13**, 635–648.
- Hassan, F. A. (1997) Nile floods and political disorder in early Egypt. In *Third Millennium BCE Climate Change and Old World Collapse*, ed. H. N. Dalfes, G. Kukla, and H. Weiss. New York: Springer, NATO ASI Series 1 (49), pp. 1–24.
- Haug, G. H. and Tiedemann, R. (1998) Effect of the formation of the Isthmus of Panama on Atlantic Ocean thermohaline circulation. *Nature*, **393**, 673–676.
- Hayden, B. (1981) Research and development in the Stone Age: technological transitions among hunter-gatherers. *Current Anthropol.*, **22**, 519–548.
- Hays, J. D., Imbrie, J. and Shackleton, N. J. (1976) Variations in the Earth's orbit; pacemaker of the ice ages. *Science*, **194**, 1121–1132.
- Held, I. M. and Hou, A. Y. (1980) Nonlinear axially symmetric circulations in a nearly inviscid atmosphere. *J. Atmos. Sci.*, **37**, 515–533.

- Heller, F. and Liu, T. S. (1982) Magnetostratigraphic dating of loess deposits in China. *Nature*, **300**, 431–433.
- Hendon, H. H. and Liebmann, B. (1990) A composite study of onset of the Australian summer monsoon. *J. Atmos. Sci.*, **47**, 2227–2240.
- Herren, E. (1987) Zaskar shear zone; north-east-south-west extension within the Higher Himalayas (Ladakh, India). *Geology*, **15**, 409–413.
- Herzschuh, U. (2006) Palaeo-moisture evolution at the margins of the Asian monsoon during the last 50 ka. *Quat. Sci. Rev.*, **25**, 163–178.
- Herzschuh, U., Tarasov, P., Wünnemann, B. and Hartmann, K. (2004) Holocene vegetation and climate of the Alashan Plateau, NW China, reconstructed from pollen data. *Palaeogeog., Palaeoclim., Palaeoeco.*, **211**, 1–17.
- Herzschuh, U., Zhang, C., Mischke, S. (2005) A Late Quaternary lake record from the Qilian Mountains (NW China): evolution of the primary production and the water depth reconstructed from macrofossil, pollen, biomarker and isotope data. *Global Planet. Change*, **46**, 361–379.
- Hess, S. and Kuhnt, W. (2005) Neogene and Quaternary paleoceanographic changes in the southern South China Sea (Site 1143); the benthic foraminiferal record. *Mar. Micropaleo.*, **54**, 63–87.
- Heusser, L. and Morley, J. (1997) Monsoon Fluctuations over the past 350 kyr: high-resolution evidence from north-east Asia / north-west Pacific climate proxies (marine pollen and radiolarians). *Quat. Sci. Rev.*, **16**, 565–581.
- Higginson, M. J., Maxwell, J. R. and Altabet, M. A. (2003) Nitrogen isotope and chlorin paleoproductivity records from the northern South China Sea; remote vs. local forcing of millennial- and orbital-scale variability. *Mar. Geol.*, **201**, 223–250.
- Higham, C. (1996) *The Bronze Age of South-east Asia*. Cambridge: Cambridge University Press, p. 381.
- Hodges, K. V. and Silverberg, D. S. (1988) Thermal evolution of the Greater Himalaya, Garhwal, India. *Tectonics*, **7**, 583–600.
- Hodges, K. V., Parrish, R. R. and Searle, M. P. (1996) Tectonic evolution of the central Annapurna Range, Nepalese Himalayas. *Tectonics*, **15**, 1264–1291.
- Hodges, K. V., Wobus, C., Ruhl, K., Schildgen, T. and Whipple, K. (2004) Quaternary deformation, river steepening, and heavy precipitation at the front of the Higher Himalayan ranges. *Earth Planet. Sci. Lett.*, **220**, 379–389.
- Holbourn, A. E., Kuhnt, W., Simo, J. A. and Li, Q. (2004) Middle Miocene isotope stratigraphy and paleoceanographic evolution of the north-west and south-west Australian margins (Wombat Plateau and Great Australian Bight). *Palaeogeog., Palaeoclim., Palaeoeco.*, **208**, 1–22.
- Holton, J. R. (2004) *An Introduction to Dynamic Meteorology*, 3rd edn. San Diego: Academic Press, p. 535.
- Hong, Y. T., Wang, Z. G., Jiang, H. B. et al. (2001) A 6000-year record of changes in drought and precipitation in north-eastern China based on a delta ¹³C time series from peat cellulose. *Earth Planet. Sci. Lett.*, **185**, 111–119.

- Hong, Y. T., Hong, B., Lin, Q. H. et al. (2003) Correlation between Indian Ocean summer monsoon and North Atlantic climate during the Holocene. *Earth Planet. Sci. Lett.*, **211**, 371–380.
- Hong, Y. T., Hong, B., Lin, Q. H. et al. (2005) Inverse phase oscillations between the East Asian and Indian Ocean summer monsoons during the last 12 000 years and paleo-El Niño. *Earth Planet. Sci. Lett.*, **231**, 337–346.
- Hoskins, B. J. and Rodwell, M. J. (1995) A model of the Asian summer monsoon. Part I: the global scale. *J. Atmos. Sci.*, **52**, 1329–1340.
- Hostetler, S. W., Clark, P. U., Bartlein, P. J., Mix, A. C. and Pisias, N. J. (1999) Atmospheric transmission of North Atlantic Heinrich events. *J. Geophys. Res.*, **104**, 3947–3952.
- Houseman, G. A. and England, P. C. (1993) Crustal thickening versus lateral expulsion in the Indian-Asian continental collision. *J. Geophys. Res.*, **98**, 12 233–12 249.
- Houseman, G. A., McKenzie, D. P. and Molnar, P. (1981) Convective instability of a thickened boundary layer and its relevance for the thermal evolution of continental convergent belts. *J. Geophys. Res.*, **86**, 6115–6132.
- Hovan, S. A., Rea, D. K., Pisias, N. G. and Shackleton, N. J. (1989) A direct link between the China loess and marine $\delta^{18}\text{O}$ records; aeolian flux to the North Pacific. *Nature*, **340**, 296–298.
- Hovan, S. A., Rea, D. K. and Pisias, N. G. (1991) Late Pleistocene continental climate and oceanic variability recorded in North-west Pacific sediments. *Paleoceanography*, **6**, 349–370.
- Hu, Z.-Z., Latif, M., Roeckner, E. and Bengtsson, L. (2000) Intensified Asian summer monsoon and its variability in a coupled model forced by increasing greenhouse gas concentrations. *Geophys. Res. Lett.*, **27**, 2681–2684.
- Huang, C. C., Pang, J., Han, Y. P. and Hou, C. H. (2000) A regional aridity phase and its possible cultural impact during the Holocene Megathermal in the Guanzhong Basin, China. *The Holocene*, **10**, 135–142.
- Huang, C. C., Zhao, S., Pang, J. et al. (2003) Climatic aridity and the relocations of the Zhou culture in the southern loess plateau of China. *Clim. Change*, **61**, 361–378.
- Huang, Q., Cai, B. and Ru, C. (1980) Radiocarbon dating of samples from several salt lakes on the Tibet Plateau and their sedimentary cycles. *Kexue Tongbao*, **25**, 990–995.
- Huang, Y., Street-Perrott, F. A., Metcalfe, S. E. et al. (2001) Climate change as the dominant control on glacial-interglacial variations in C3 and C4 plant abundance. *Science*, **293**, 1647–1651.
- Hughes, M. K., Wu, X., Shao, X. and Garfin, G. M. (1994) A preliminary reconstruction of rainfall in North-Central China since A.D. 1600 from tree-ring density and width. *Quat. Res.*, **42**, 88–99.
- Huntington, K. W., Blythe, A. E. and Hodges, K. V. (2006) Climate change and Late Pliocene acceleration of erosion in the Himalaya. *Earth Planet. Sci. Lett.*, **252**, 107–118.
- Indermühle, A., Monnin, E., Stauffer, B., Stocker, T. F. and Wahlen, M. (2000) Atmospheric CO₂ concentration from 60 to 20 kyr B.P. from the Taylor Dome ice core, Antarctica. *Geophys. Res. Lett.*, **27**, 735–738.

- Ingall, E. and Jahnke, R. (1994) Evidence for enhanced phosphorus regeneration from marine sediments overlain by oxygen depleted waters. *Geochim. Cosmochim. Acta*, **58**, 2571–2575.
- IPCC (2001) *Synthesis Report. A Contribution of Working Groups I, II, and III to the Third Assessment Report of the Intergovernmental Panel on Climate Change*, ed. T. R. Watson and Core Writing Team, Cambridge: Cambridge University Press, p. 398.
- Irino, T. and Tada, R. (2000) Quantification of aeolian dust (Kosa) contribution to the Japan Sea sediments and its variation during the last 200 ky. *Geochem. J.*, **34**, 59–93.
- Irino, T. and Tada, R. (2002) High-resolution reconstruction of variation in aeolian dust (Kosa) deposition at ODP Site 797, the Japan Sea, during the last 200 ka. *Global Planet. Change*, **35**, 143–156.
- Janecek, T. R. and Rea, D. K. (1985) Quaternary fluctuations in northern hemispheric tradewinds and westerlies. *Quat. Res.*, **24**, 150–163.
- Jarrige, J. F. (1993) Excavations at Mehrgarh: their significance for understanding the background of the Harappan Civilization. In *Harappan Civilization: A Recent Perspective*, ed. G. Possehl, Delhi: Oxford University Press, pp. 125–135.
- Jia, G., Peng, P., Zhao, Q. and Jian, Z. (2003) Changes in terrestrial ecosystem since 30 Ma in East Asia: stable isotope evidence from black carbon in the South China Sea. *Geology*, **31**, 1093–1096.
- Jin, L. and Su, B. (2000) Natives or immigrants: modern human origin in East Asia. *Nature Rev. Genet.*, **1**, 126–133.
- Johnsen, S. J., Clausen, H. B., Dansgaard, W. *et al.* (1992) Irregular glacial interstadials recorded in a new Greenland ice core. *Nature*, **359**, 311–313.
- Jones, C. E., Halliday, A. N., Rea, D. K. and Owen, R. M. (1994) Neodymium isotopic variations in North Pacific modern silicate sediment and the insignificance of detrital REE contributions to seawater. *Earth Planet. Sci. Lett.*, **127**, 55–66.
- Jung, S. J. A., Davies, G. R., Ganssen, G. and Kroon, D. (2002) Decadal-centennial scale monsoon variations in the Arabian Sea during the early Holocene. *Geochem., Geophys., Geosyst.*, **3** (10), 1060, doi: 10.1029/2002GC000348.
- Jung, S. J. A., Davies, G. R., Ganssen, G. M. and Kroon, D. (2004) Stepwise Holocene aridification in NE Africa deduced from dust-borne radiogenic isotope records. *Earth Planet. Sci. Lett.*, **221** (1–4), 27–37.
- Kapsner, W. R., Alley, R. B., Shuman, C. A., Anandakrishnan, S. and Grootes, P. M. (1995) Dominant influence of atmospheric circulation in Greenland over the past 18 000 years. *Nature*, **373**, 52–54.
- Kar, A. (1984) The Drishadvati River system of India; an assessment and new findings. *Geograph. J.*, **150** (2), 221–229.
- Karim, A. and Veizer, J. (2002) Water balance of the Indus River Basin and moisture source in the Karakoram and western Himalayas: implications from hydrogen and oxygen isotopes in river water. *J. Geophys. Res.*, **107** (D18), 4362, doi: 10.1029/2000JD000253.
- Kirch, A. (1997) *Zur Paläoozeanographie westlich von Luzon (Philippinen)*. M.Sc. thesis, Kiel, Germany: Kiel University, p. 28.

- Kitoh, A. (1997) Mountain uplift and surface temperature changes. *Geophys. Res. Lett.*, **24**, 185–188.
- Kitoh, A. (2004) Effect of mountain uplift on East Asian summer climate investigated by a coupled atmosphere–ocean GCM. *J. Clim.*, **17**, 783–802.
- Klinck, J. M. and Smith, D. A. (1993) Effect of wind changes during the last glacial maximum on the circulation of the Southern Ocean. *Paleoceanography*, **8**, 427–433.
- Koons, P. O., Zeitler, P. K., Chamberlain, C. P., Craw, D. and Meltzer, A. S. (2002) Mechanical links between erosion and metamorphism in Nanga Parbat, Pakistan Himalaya. *Amer. J. Sci.*, **302**, 749–773.
- Krishna, K. S., Bull, J. M. and Scrutton, R. A. (2001) Evidence for multiphase folding of the central Indian Ocean lithosphere. *Geology*, **29**, 715–718.
- Krissek, L. A. and Clemens, S. C. (1991) Mineralogic variations in a Pleistocene high-resolution Eolian record from the Owen Ridge, western Arabian Sea (Site 722); implications for sediment source conditions and monsoon history. *Proc. Ocean Drill. Prog., Sci. Res.*, **117**, 197–213.
- Kroon, D., Steens, T. and Troelstra, S. R. (1991) Onset of Monsoonal related upwelling in the western Arabian Sea as revealed by planktonic foraminifers. *Proc. Ocean Drill. Prog., Sci. Res.*, **117**, 257–263.
- Kudrass, H. R., Hofmann, A., Doose, H., Emeis, K. and Erlenkeuser, H. (2001) Modulation and amplification of climatic changes in the Northern Hemisphere by the Indian summer monsoon during the past 80 k.y. *Geology*, **29**, 63–66.
- Kuhlemann J. (2001) Post-collisional sediment budget of circum-Alpine basins (Central Europe). *Sci. Mem. Geol., Padova*, **52**, 1–91.
- Kuhlemann, J., Frisch, W., Dunkl, I. and Szekely, B. (2001) Quantifying tectonic versus erosive denudation by the sediment budget: the Miocene core complexes of the Alps. *Tectonophysics* **330**, 1–23.
- Kuhnt, W., Holbourn, A., Hall, E., Zuvella, M. and Käse, R. (2004) Neogene history of the Indonesian Throughflow. In *Continent–Ocean Interactions Within East Asian Marginal Seas*, ed. P. D. Clift, W. Kuhnt, P. Wang and D. E. Hayes, *Geophys. Monogr. Ser.* **149**, Washington DC: American Geophysical Union, pp. 299–320.
- Kukla, G., An, Z. S., Melice, J. L., Gavin, J. and Xiao, J. L. (1990) Magnetic susceptibility record of Chinese loess. *Trans. R. Soc. Edin. Earth Sci.*, **81**, 263–288.
- Kutzbach, J. E., Guetter, P. J., Ruddiman, W. F. and Prell, W. L. (1989) Sensitivity of climate to late Cenozoic uplift in southern Asia and the American West; numerical experiments. *J. Geophys. Res.*, **94** (15), 18 393–18 407.
- Kutzbach, J. E., Prell, W. L. and Ruddiman, W. F. (1993) Sensitivity of Eurasian climate to surface uplift of the Tibetan Plateau. *J. Geology*, **101**, 177–190.
- Kuwae, M., Yoshikawa, S., Tsugeki, N. and Inouchi, Y. (2004) Reconstruction of a climate record for the past 140 kyr based on diatom valve flux data from Lake Biwa, Japan. *J. Paleolim.*, **32**, 19–39.
- Lal, B. B. (1997) *The Earliest Civilization of South Asia*. Delhi: Aryan Books International, p. 308.

- Li, C., Chen, Q., Zhang, J., Yang, S. and Fan, D. (2000) Stratigraphy and paleoenvironmental changes in the Yangtze delta during late Pleistocene. *J. Asian Earth Sci.*, **18**, 453-469.
- Li, S., Zheng, B. and Jiao, K. (1989) Preliminary research on lacustrine deposits and lake evolution on the southern slope of the west Kunlun Mountains. *Bull. Glacier Res.*, **7**, 169-176.
- Li, X. H., Wei, G., Shao, L. *et al.* (2003) Geochemical and Nd isotopic variations in sediments of the South China Sea: a response to Cenozoic tectonism in SE Asia. *Earth Planet. Sci. Lett.*, **211**, 207-220.
- Lindzen, R. S. and Hou, A. Y. (1988) Hadley circulations for zonally averaged heating centered off the equator. *J. Atmos. Sci.*, **45**, 2416-2427.
- Liu, K.-B., Shen, C. and Louie, K.-B. (2001) A 1000-year history of typhoon landfalls in Guangdong, Southern China, reconstructed from Chinese historical documentary records. *Ann. Assoc. Amer. Geograph.*, **91** (3), 453-464.
- Liu L. (1996) Settlement patterns, chiefdom variability, and the development of early states in North China. *J. Anthropol. Archaeol.*, **15**, 237-288.
- Liu, T. S. (1985) *Loess and the Environment*. Beijing: China Ocean Press, p. 251.
- Liu, T., Ding, Z. and Rutter, N. (1999) Comparison of Milankovitch periods between continental loess and deep sea records over the last 2.5 Ma. *Quat. Sci. Rev.*, **18**, 1205-1212.
- Liu, W., Feng, X., Liu, Y., Zhang, Q. and An, Z. (2004b) $\delta^{18}\text{O}$ values of tree rings as a proxy of monsoon precipitation in arid north-west China. *Chem. Geol.*, **206**, 73-80.
- Liu, W., Huang, Y., An, Z. *et al.* (2005) Summer monsoon intensity controls C4/C3 plant abundance during the last 35 ka in the Chinese Loess Plateau; carbon isotope evidence from bulk organic matter and individual leaf waxes. *Palaeogeog., Palaeoclim., Palaeoecol.*, **220**, 243-254.
- Liu, X. and Yin, Z.-Y. (2002) Sensitivity of East Asian monsoon climate to the uplift of the Tibetan Plateau. *Palaeogeog., Palaeoclimat., Palaeocol.*, **183**, 223-245.
- Liu, X. M., Liu, T. S., Xu, T. C., Liu, C. and Chen, M. Y. (1988) The Chinese Loess in Xifeng: I: the primary study on magnetostratigraphy of a loess profile in Xifeng area, Gansu Province. *Geophys. J.*, **93**, 345-348.
- Liu, Z. C., Sun, S. Y., Yang, F. and Zhou, Z. H. (1990) Quaternary stratigraphical and chronological studies of Sanhu Region, Qaidam basin (in Chinese). *Sci. China (Ser. B)*, **11**, 1202-1212.
- Liu, Z., Trentesaux, A., Clemens, S. C. (2003) Clay mineral assemblages in the northern South China Sea; implications for East Asian monsoon evolution over the past two million years. *Mar. Geol.*, **201**, 133-146.
- Liu, Z., Colin, C., Trentesaux, A. *et al.* (2004c) Erosional history of the eastern Tibetan Plateau since 190 kyr ago; clay mineralogical and geochemical investigations from the south-western South China Sea. *Mar. Geol.*, **209**, 1-18.
- Liu, Z., Henderson, A. C. G. and Huang, Y. S. (2006) Alkenone-based reconstruction of late Holocene surface temperature and salinity changes in Lake Qinghai, China. *Geophys. Res. Lett.*, **33**, L09707.

- Loewe, M. and Shaughnessy, E. L. (1999) *The Cambridge History of Ancient China: From the Origins of Civilization to 221 BCE*. Cambridge: Cambridge University Press, p. 1180.
- Loope, D. B., Rowe, C. M. and Joeckel, R. M. (2001) Annual monsoon rains recorded by Jurassic dunes. *Nature*, **412** (6842), 64-66.
- Louie, K. S. and Liu, K.-B. (2003) Earliest historical records of typhoons in China. *J. Hist. Geog.*, **29** (3), 299-316.
- Ma, Y., Li, J. and Fan, X. (1998) Pollen-based vegetational and climatic records during 30.6 to 5.0 My from Linxia area, Gansu. *Chinese Sci. Bull.*, **43**, 301-304 (in Chinese).
- Madden, R. A. and Julian, P. R. (1972) Description of Global-scale circulation cells in the Tropics with a 40-50 Day Period. *J. Atmos. Sci.*, **29** (6), 1109-1123.
- Madden, R. A. and Julian, P. R. (1994) Observations of the 40-50-day Tropical Oscillation - a review. *Mon. Wea. Rev.*, **122**, 814-837.
- Madsen, D. B., Li, J., Elston, R. G. *et al.* (1998) The loess/paleosol record and the nature of the Younger Dryas climate in central China. *Geoarchaeol.: Int. J.*, **13** (8), 847-869.
- Maher, B. A. (1986) Characterization of soils by mineral magnetic measurements. *Phys. Earth Planet. Interiors*, **42**, 76-92.
- Maizels, J. K. and McBean, C. (1990) Cenozoic alluvial fan systems of interior Oman: palaeoenvironmental reconstruction based on discrimination of palaeochannels using remotely sensed data. In *The Geology and Tectonics of the Oman Region*, ed. A. H. F. Robertson, M. P. Searle and A. C. Ries. *Geol. Soc., Lond., Spec. Publ.*, **49**, 565-582.
- Mann, M. E., Bradley, R. S. and Hughes, M. K. (1999) Northern Hemisphere temperatures during the past millennium: inferences, uncertainties, and limitations. *Geophys. Res. Lett.*, **26**, 759-762.
- Marshall, J. and Plumb, R. A. (2008) *Atmosphere Ocean, and Climate Dynamics: An Introductory Text*. International Geophysics Series, v. 93, Elsevier Academic Press, Burlington, MA. 319 pp.
- Martinson, D. G., Pisias, N. G., Hays, J. D. *et al.* (1987) Age dating and the orbital theory of the ice ages; development of a high-resolution 0 to 300 000-year chronostratigraphy. *Quat. Res.*, **27**, 1-29.
- Maslin, M. A., Seidov, D. and Lowe, J. (2001) Synthesis and nature and causes of rapid climate transitions during the Quaternary (a review). In *The Oceans and Rapid Climate Change*, ed. D. Seidov, B. J. Haupt, E. J. Barron and M. Maslin. *Amer. Geophys. U. Geophys. Monogr.*, **126**, 9-51.
- Mattinson, J. M. (1978) Age, origin, and thermal histories of some plutonic rocks from Salinian Block of California. *Contrib. Mineral. Petrol.*, **67**, 233-245.
- Mayewski, P. A., Meeker, L. D., Whitlow, S. *et al.* (1994) Changes in atmospheric circulation and ocean ice cover over the North Atlantic during the last 41 000 years. *Science*, **263**, 1747-1751.
- McCreary, J. P., Kundu, P. K. and Molinari, R. L. (1993) A numerical investigation of dynamics, thermodynamics, and mixed layer processes in the Indian Ocean. *Prog. Ocean.*, **31**, 181-244.
- McDonald, W. F. (1938) *Atlas of climate charts of the oceans*, Charts 59-62, Washington, DC: US Department of Agriculture, Weather Bureau, p. 247.

- McIntyre, A. and Molino, B. (1996) Forcing Atlantic equatorial and subpolar millennial cycles by precession. *Science*, **274**, 1867–1870.
- Meehl, G. A. (1994) Coupled ocean–atmosphere–land processes and south Asian monsoon variability. *Science*, **265**, 263–267.
- Meehl, G. A. (1997) The south Asian monsoon and the tropospheric biennial oscillation. *J. Clim.*, **10**, 1921–1943.
- Mercier, J. L., Armijo, R., Tapponnier, P., Carey, G. E. and Han, T. L. (1987) Change from late Tertiary compression to Quaternary extension in southern Tibet during the India–Asia collision. *Tectonics*, **6**, 275–304.
- Métivier, F., Gaudemer, Y., Tapponnier, P. and Klein, M. (1999) Mass accumulation rates in Asia during the Cenozoic. *Geophys. J. Int.*, **137**, 280–318.
- Miller, K. G., Wright, J. M. and Fairbanks, R. G. (1991) Unlocking the Ice House: Oligocene–Miocene oxygen isotopes, eustasy, and margin erosion. *J. Geophys. Res.*, **96**, 6829–6848.
- Milliman, J. D. and Syvitski, J. P. M. (1992) Geomorphic/tectonic control of sediment discharge to the ocean; the importance of small mountainous rivers. *J. Geology*, **100**, 525–544.
- Mischke, S., Herzschuh, U., Zhang, C., Bloemendal, J. and Riedel, F. (2005) Late Quaternary lake record from the Qilian Mountains (NW China): lake level and salinity changes inferred from sediment properties and ostracod assemblages. *Global Planet. Change*, **46**, 337–359.
- Moberg, A., Sonechkin, D. M., Holmgren, K., Datsenko, N. M. and Karlen, W. (2005) Highly variable Northern Hemisphere temperatures reconstructed from low and high-resolution proxy data. *Nature*, **433**, 613–617.
- Molnar, P. (2004) Late Cenozoic increase in accumulation rates of terrestrial sediment: how might climate change have affected erosion rates? *Ann. Rev. Earth Planet. Sci.*, **32**, 67–89.
- Molnar, P. and Emanuel, K. A. (1999) Temperature profiles in radiative-convective equilibrium above surfaces at different heights. *J. Geophys. Res.*, **104**, 24 265–24 484.
- Molnar, P. and England, P. C. (1990) Late Cenozoic uplift of mountain ranges and global climate change: chicken or egg? *Nature*, **346**, 29–34.
- Molnar, P., England, P. and Martinod, J. (1993) Mantle dynamics, the uplift of the Tibetan Plateau, and the Indian monsoon. *Rev. Geophys.*, **31**, 357–396.
- Morgan, M. E., Kingston, J. D. and Marino, B. D. (1994) Carbon isotopic evidence for the emergence of C4 plants in the Neogene from Pakistan and Kenya. *Nature*, **367**, 162–165.
- Mountain, G. S. and Prell, W. L. (1990) A multiphase plate tectonic history of the south-east continental margin of Oman. In *The Geology and Tectonics of the Oman Region*, ed. A. H. F. Robertson, M. P. Searle and A. C. Ries. *Geol. Soc., Lond., Spec. Publ.*, pp. 725–743.
- Murphy, M. A., Yin, A., Harrison, T. M. *et al.* (1997) Did the Indo–Asian collision alone create the Tibetan Plateau? *Geology*, **25**, 719–722.
- Murthy, S. R. N. (1980) The Vedic River Saraswati, a myth or fact; a geological approach. *Indian J. Hist. Sci.*, **15** (2), 189–192.

- Nair, R. R., Ittekkot, V., Manganini, S. J. *et al.* (1989) Increased particle flux to the deep ocean related to monsoons. *Nature*, **338**, 749–751.
- Najman, Y. (2006) The detrital record of orogenesis: a review of approaches and techniques used in the Himalayan sedimentary basins. *Earth-Sci. Rev.*, **74**, 1–72.
- Najman, Y., Pringle, M., Godin, L. and Oliver, G. (2001) Dating of the oldest continental sediments from the Himalayan foreland basin. *Nature*, **410**, 194–197.
- Naqvi, W. A. and Fairbanks, R. G. (1996) A 27 000 year record of Red Sea outflow; implication for timing of post-glacial monsoon intensification. *Geophys. Res. Lett.*, **23**, 1501–1504.
- Nathan, S. A. and Leckie, R. M. (2004) Gateway closures and ocean circulation during the late Miocene (approximately 13–5 Ma). *Abstr. Prog., Geol. Soc. Amer.*, **36**, 197.
- Nathan, S. A., Leckie, R. M., Olson, B. and Deconto, R. M. (2003) The Western Pacific Warm Pool; a probe of global sea level change and Indonesian Seaway closure during the middle to late Miocene. *Ann. Meet. Abstr., Amer. Assoc. Petrol. Geol.*, **12**, 126.
- Neelin, J. D. (2007) Moist dynamics of tropical convection zones in monsoons, teleconnections and global warming. In *The Global Circulation of the Atmosphere*, ed. T. Schneider and A. Sobel, Princeton, NJ: Princeton University Press, pp. 267–301.
- Neff, U., Burns, S. J., Mangini, A. *et al.* (2001) Strong coherence between solar variability and the monsoon in Oman between 9 and 6 kyr ago. *Nature*, **411**, 290–293.
- Nelson, K. D., Zhao, W., Brown, L. D. *et al.* (1996) Partially molten middle crust beneath southern Tibet: synthesis of Project INDEPTH results. *Science*, **274**, 1684–1688.
- Nesbitt, G. M. and Young, H. W. (1982) Early Proterozoic climates and plate motions inferred from major element chemistry of lutites. *Nature*, **299**, 715–717.
- Nicholls, N. (1983) Air–sea interaction and the quasi-biennial oscillation. *Mon. Wea. Rev.*, **106**, 1505–1508.
- Nitsuma, N., Oba, T. and Okada, M. (1991) Oxygen and carbon isotope stratigraphy at site 723, Oman Margin. *Proc. Ocean Drilling Prog., Sci. Res.*, **117**, College Station, TX: Ocean Drilling Program, 321–341.
- Oldham, R. D. (1893) The Saraswati and the Lost River of the Indian Desert. *J. R. Asiatic Soc.*, **1893**, 49–76.
- Oppo, D. W. and Lehman, S. J. (1995) Suborbital timescale variability of North Atlantic Deep Water during the past 200 000 years. *Paleoceanography*, **10**, 901–910.
- Oppo, D. W., Linsley, B. K., Rosenthal, Y., Dannemann, S. and Beaufort, L. (2003) Orbital and suborbital climate variability in the Sulu Sea, western tropical Pacific. *Geochem., Geophys., Geosyst.*, **1003**, doi: 10.1029/2001GC000260.
- Overpeck, J. and Cole, J. E. (2007) Climate change: lessons from a distant monsoon. *Nature*, **445**, 270–271.
- Overpeck, J., Anderson, D., Trumbore, S. and Prell, W. (1996a) The south-west Indian Monsoon over the last 18 000 years. *Clim. Dynam.*, **12**, 213–225.
- Overpeck, J., Rind, D., Laci, A. and Healy, R. (1996b) Possible role of dust-induced regional warming in abrupt climate change during the last glacial period. *Nature*, **384**, 447–449.
- Pairault, A. A., Hall, R. and Elders, C. F. (2003) Structural styles and tectonic evolution of the Seram Trough, Indonesia. *Mar. Petrol. Geol.*, **20**, 1141–1160.

- Palmer, M. R. and Edmond, J. M. (1989) The strontium isotope budget of the modern ocean. *Earth Planet. Sci. Lett.*, **92**(1), 11–26.
- Pan, Y. and Kidd, W. S. F. (1992) Nyainqentanglha shear zone; a late Miocene extensional detachment in the southern Tibetan Plateau. *Geology*, **20**, 775–778.
- Pang, K. D. (1987) Extraordinary floods in early Chinese history and their absolute dates. *J. Hydrol.*, **96**, 139–155.
- Pearson, P. N. and Palmer, M. R. (2000) Atmospheric carbon dioxide concentrations over the past 60 million years. *Nature*, **406**, 695–699.
- Pechenkina, E. A., Benfer, R. A. and Wang, Z. (2001) Diet and health changes at the end of the Chinese neolithic: the Yangshao/Longshan transition in Shaanxi province. *Amer. J. Phys. Anthropol.*, **117**, 15–36.
- Pelejero, C. and Grimalt, J. O. (1997) The correlation between the UK37 index and sea-surface temperature in the warm boundary: the South China Sea. *Geochim. Cosmochim. Acta*, **61**, 4789–4797.
- Peltier, W. R. (1994) Ice age paleotopography. *Science*, **265**, 195–201.
- Peregrine, P. (1991) Some political aspects of craft specialization. *World Archaeol.*, **23**, 1–11.
- Peterson, L. C., Murray, D. W., Ehrmann, W. U. and Hempel, P. (1992) Cenozoic carbonate accumulation and compensation depth changes in the Indian Ocean. In: *Synthesis of Results From Scientific Drilling in the Indian Ocean*, ed. R. A. Duncan, D. K. Rea, R. B. Kidd, U. von Rad and J. K. Weissel, American Geophysical Union Monog. **70**, 311–333.
- Petit, J. R., Jouzel, J., Raynaud, D. et al. (1999) Climate and atmospheric history of the past 420 000 years from the Vostok ice core, Antarctica. *Nature*, **399**, 429–436.
- Petit, J. R., Jouzel, J., Raynaud, D. et al. (2001) *Vostok Ice Core Data for 420 000 Years*, IGBP PAGES/World Data Center for Paleoclimatology Data Contribution Series #2001-076. Boulder CO, USA: NOAA/NGDC Paleoclimatology Program.
- Pettke, T., Halliday, A. N., Hall, C. M. and Rea, D. K. (2000) Dust production and deposition in Asia and the North Pacific Ocean over the past 12 Myr. *Earth Planet. Sci. Lett.*, **178**, 397–413.
- Porter, S. C. and An, Z. S. (1995) Correlation between climate events in the North Atlantic and China during the last glaciation. *Nature*, **375**, 305–308.
- Possehl, G. (1990) Revolution in the urban revolution: the emergence of Indus urbanization. *Ann. Rev. Anthropol.*, **19**, 261–282.
- Possehl, G. (1993) *Harappan Civilization: A Recent Perspective*. Delhi: Oxford University Press, p. 595.
- Possehl, G. (1997) Climate and the eclipse of the ancient cities of the Indus. In *Third Millennium BCE Climate Change and Old World Collapse*, ed. H. N. Dalfes, G. Kukla and H. Weiss, NATO ASI Ser. 1, **49**, New York: Springer, pp. 193–244.
- Potts, D. T. (1999) *The Archaeology of Elam: Formation and Transformation of an Ancient Iranian State*. Cambridge: Cambridge University Press, p. 488.
- Powell, C. M. (1986) Curvature of the Himalayan Arc related to Miocene normal faults in southern Tibet. *Geology*, **14**, 358–359.
- Prabhu, C. N., Shankar, R., Anupama, K. et al. (2004) A 200-ka pollen and oxygen-isotopic record from two sediment cores from the eastern Arabian Sea. *Palaeogeog., Palaeoclim., Palaeoeco.*, **214**, 309–321.

- Prawdin, M. (2006) *The Mongol Empire: Its Rise and Legacy*. New York: Transaction Publishers, p. 581.
- Prell, W. L. and Curry, W. B. (1981) Faunal and isotopic indices of monsoonal upwelling: western Arabian Sea. *Ocean. Acta*, **4**, 91–98.
- Prell, W. L. and Kutzbach, J. E. (1987) Monsoon variability over the past 150 000 years. *J. Geophys. Res. Atmos. Sci.*, **92** (D7), 8411–8425.
- Prell, W. L. and Kutzbach, J. E. (1992) Sensitivity of the Indian monsoon to forcing parameters and implications for its evolution. *Nature*, **360**, 647–652.
- Prell, W. L., Murray, D. W., Clemens, S. C. and Anderson, D. M. (1992) Evolution and variability of the Indian Ocean Summer Monsoon: evidence from the western Arabian Sea drilling program. In *Synthesis of Results from Scientific Drilling in the Indian Ocean*, ed. R. A. Duncan, D. K. Rea, R. B. Kidd, U. von Rad and J. K. Weissel. *Amer. Geophys. U. Monogr.*, **70**, 447–469.
- Prins, M. A. and Postma, G. (2000) Effects of climate, sea level, and tectonics unraveled for last deglaciation turbidite records of the Arabian Sea. *Geology*, **28**, 375–378.
- Privé, N. C. and Plumb, R. A. (2007a) Monsoon dynamics with interactive forcing. Part I: axisymmetric studies. *J. Atmos. Sci.*, **64** (5), 1417–1430.
- Privé, N. C. and Plumb, R. A. (2007b) Monsoon dynamics with interactive forcing. Part II: impact of eddies and asymmetric geometries. *J. Atmos. Sci.*, **64** (5), 1431–1442.
- Prospero, J. M., Uematsi, M. and Savoie, D. L. (1989) Mineral aerosol transport to the Pacific Ocean. In *Chemical Oceanography*, vol. 10, ed. J. P. Riley, R. Chester and R. A. Duce, San Diego: Academic Press, pp. 187–218.
- Purdy, J. and Jäger, E. (1976) K-Ar ages on rock-forming minerals from the Central Alps. *Mem. 1st Geol. Min. Congr., Univ. Padova*, **30**, p. 32.
- Puri, V. M. K. (2001) Origin and course of Vedic Saraswati River in Himalaya; its secular desiccation episodes as deciphered from palaeo-glaciation and geomorphological signatures. In *Proceedings; Symposium on Snow, Ice and Glaciers; a Himalayan Perspective*, ed. S. K. Acharyya. *Geol. Surv. India, Spec. Publ. Ser.*, **53**, 175–191.
- Pye, K. and Zhou, L. (1989) Late Pleistocene and Holocene aeolian dust deposition in north China and the North-west Pacific Ocean. *Palaeogeog., Palaeoclim., Palaeoeco.*, **73**, 11–23.
- Quade, J. (1993) Major shifts in the $^{87}\text{Sr}/^{86}\text{Sr}$ ratios of large paleorivers draining the Himalayas of central Nepal over the past 10 Ma. *Geol. Soc. America, Abstr. Prog.*, **25** (6), 175.
- Quade, J., Cerling, T. E. and Browman, J. R. (1989) Dramatic ecologic shift in the late Miocene of northern Pakistan, and its significance to the development of the Asian monsoon. *Nature*, **342**, 163–166.
- Ramage, C. (1971) *Monsoon Meteorology*. New York: Academic Press, *International Geophysics Series*, vol. 15, p. 296.
- Ramstein, G., Fluteau, F., Besse, J. and Joussaume, S. (1997) Effect of orogeny, plate motion and land-sea distribution on Eurasian climate change over the past 30 million years. *Nature*, **386**, 788–795.
- Rao, Y. P. (1976) *South-west Monsoon*. New Delhi: India Meteorological Department, p. 367.

- Raval, A. and Ramanathan, V. (1989) Observational determination of the greenhouse effect. *Nature*, **342**, 758–762.
- Raymo, M. E. and Ruddiman, W. F. (1992) Tectonic forcing of the late Cenozoic climate. *Nature*, **359**, 117–122.
- Raymo, M. E., Ruddiman, W. F. and Froelich, P. (1988) Influence of late Cenozoic mountain building on ocean geochemical cycles. *Geology*, **16**, 649–653.
- Rea, D. K. (1992) Delivery of Himalayan sediment to northern Indian Ocean and its relation to global climate, sea level, uplift and seawater strontium. In *Synthesis of Results from Scientific Drilling in the Indian Ocean*, ed. R. A. Duncan, D. K. Rea, R. B. Kidd, U. von Rad and J. K. Weissel. *Amer. Geophys. U. monogr.*, **70**, 387–402.
- Rea, D. K. (1994) The paleoclimatic record provided by Eolian deposition in the deep sea; the geologic history of wind. *Rev. Geophys.*, **32**, 159–195.
- Rea, D. K., Basov, I. A., Janecek, T. R. et al. (1993) *Proc. Ocean Drill. Prog. Init. Rpts*, **145**, College Station, TX: Ocean Drilling Program, p. 1040.
- Rea, D. K., Snoeckx, H and Joseph, L. H. (1998) Late Cenozoic Eolian deposition in the North Pacific: Asian drying, Tibetan uplift, and cooling of the northern hemisphere. *Paleoceanography*, **13**, 215–224.
- Reade, J. (2001) Assyrian king-lists, the royal tombs of Ur, and Indus origins. *J. Near East. Stud.*, **60**, 1–29.
- Redfield, C. C., Ketchum, B. H. and Richards, F. A. (1963) The influence of organisms on the composition of sea-water. In *The Sea*, ed. M. N. Hill, New York: Wiley-Interscience, pp. 26–77.
- Reichert, G. J., den Dulk, M., Visser, H. J., van der Weijden, C. H. and Zachariasse, W. J. (1997) A 225 kyr record of dust supply, paleoproductivity and the oxygen minimum zone from the Murray Ridge (northern Arabian Sea). *Palaeogeog. Palaeoclim. Palaeoeco.*, **134**, 149–169.
- Reiners, P. W., Ehlers, T. A., Mitchell, S. G. and Montgomery, D. R. (2003) Coupled spatial variations in precipitation and long-term erosion rates across the Washington Cascades. *Nature*, **426**, 645–647.
- Ren, S. N. (2000) The origin and development of settlement and society during the Neolithic Age in China. *Archaeology*, **7**, 48–59 (in Chinese).
- Richards, J. F. (1990) The seventeenth-century crisis in South Asia. *Mod. Asian Stud.*, **24**, 625–638.
- Richards, J. F. (1996) *The Mughal Empire*. Cambridge: Cambridge University Press, p. 337.
- Richerson, P. J., Boyd, R. and Bettinger, R. L. (2001) Was agriculture impossible during the Pleistocene but mandatory during the Holocene? A climate change hypothesis. *Amer. Antiq.*, **66** (3), 387–412.
- Rodgers, D. W. and Gunatilaka, A. (2002) Bajada formation by monsoonal erosion of a subaerial forebulge, Sultanate of Oman. *Sed. Geol.*, **154**, 127–146.
- Rodwell, M. J. and Hoskins, B. J. (1995) A model of the Asian summer monsoon. Part II: cross-equatorial flow and PV behavior. *J. Atmos. Sci.*, **52**, 1341–1356.
- Rodwell, M. J. and Hoskins, B. J. (2001) Subtropical anticyclones and summer monsoons. *J. Clim.*, **14**, 3192–3211.

- Rogalla, U. and Andruleit, H. (2005) Precessional forcing of coccolithophore assemblages in the northern Arabian Sea; implications for monsoonal dynamics during the last 200 000 years. *Mar. Geol.*, **217**, 31–48.
- Rögl, F. and Steininger, F. F. (1984) Neogene Paratethys, Mediterranean and Indo-pacific seaways. In *Fossils and Climate*, ed. P. J. Brenchley, New York: John Wiley and Sons., pp. 171–200.
- Rosignol-Strick, M., Paterne, M., Bassinot, F. C., Emeis, K. C. and de Lange, G. J. (1998) An unusual mid-Pleistocene monsoon period over Africa and Asia. *Nature*, **392**, 269–272.
- Roth, J. M., Droxler, A. W. and Kameo, K. (2000) The Caribbean carbonate crash at the middle to late Miocene transition: linkage to the establishment of the modern global ocean conveyor. *Proc. Ocean Drill. Prog., Sci. Res.*, **165**, College Station, TX: Ocean Drilling Program, pp. 249–273.
- Rowley, D. B. (1996) Age of initiation of collision between India and Asia; a review of stratigraphic data. *Earth Planet. Sci. Lett.*, **145**, 1–13.
- Rowley, D. B. and Currie, B. S. (2006) Palaeo-altimetry of the late Eocene to Miocene Lunpola basin, central Tibet. *Nature*, **439**, 677–681.
- Rowley, D. B., Pierrehumbert, R. T. and Currie, B. S. (2001) A new approach to stable isotope-based paleoaltimetry: implications for paleoaltimetry and paleohypsometry of the High Himalaya since the Late Miocene. *Earth Planet. Sci. Lett.*, **188**, 253–268.
- Ruddiman, W. F. and Kutzbach, J. E. (1989) Forcing of late Cenozoic Northern Hemisphere climate by plateau uplift in southern Asia and the American West. *J. Geophys. Res.*, **94** (15), 18 409–18 427.
- Rutherford, E., Burke, K. and Lytwyn, J. (2001) Tectonic history of Sumba Island, Indonesia, since the Late Cretaceous and its rapid escape into the forearc in the Miocene. *J. Asian Earth Sci.*, **19**, 453–479.
- Saito, Y. (1998) Sea levels of the last glacial in the East China Sea continental shelf. *Quat. Res.*, **37**, 235–242 (in Japanese with English abstract).
- Saji, N. H., Goswami, B. N., Vinayachandran, P. N. and Yamagata, T. (1999) A dipole mode in the tropical Indian Ocean. *Nature*, **401**, 360–363.
- Sanders, F. (1984) Quasi-geostrophic diagnosis of the Monsoon Depression of 5–8 July, 1979. *J. Atmos. Sci.*, **41**, 538–552.
- Schmitz, W. J. and McCartney, M. S. (1993) On the North Atlantic circulation. *Rev. Geophys.*, **31**, 29–50.
- Schoenbohm, L. M., Burchfiel, B. C., Chen, L. and Yin, J. (2006) Miocene to present activity along the Red River fault, China, in the context of continental extrusion, upper-crustal rotation, and lower-crustal flow. *Geol. Soc. Amer. Bull.*, **118**, 672–688.
- Schwenk, T., Spiess, V., Hübscher, C. and Breitzke, M. (2003) Frequent channel avulsions within the active channel-levee system of the middle Bengal Fan – an exceptional channel-levee development derived from Parasound and Hydrosweep data. *Deep-Sea Res. II*, **50**, 1023–1045.
- Searle, M. P. and Godin, L. (2003) The South Tibetan detachment and the Manaslu Leucogranite: a structural reinterpretation and restoration of the Annapurna-Manaslu Himalaya, Nepal. *J. Geology*, **111**, 505–523.

- Shackleton, N. J. and Opdyke, N. D. (1977) Oxygen isotope and palaeomagnetic evidence for early Northern Hemisphere glaciation. *Nature*, **270**, 216–219.
- Shackleton, N. J., Berger, A. and Peltier, W. A. (1990) An alternative astronomical calibration of the lower Pleistocene timescale based on ODP Site 677. *Trans. R. Soc. Edin. Earth Sci.*, **81**, 251–261.
- Shackleton, N. J., Hall, M. A. and Pate, D. (1995) Pliocene stable isotope stratigraphy of ODP Site 846. In: *Proc. Ocean Drill Prog., Sci. Rpt.*, ed. N. G. Pisias *et al.*, 337–355.
- Shaffer, J. G. (1992) The Indus Valley, Baluchistan and Helmand Traditions: Neolithic through Bronze Age. In *Chronologies in Old World Archaeology*, ed. R. W. Ehrich. Chicago: University of Chicago Press, pp. 425–446.
- Sharma, S., Joachimski, M., Sharma, M. *et al.* (2004) Late glacial and Holocene environmental changes in Ganga plain, northern India. *Quat. Sci. Rev.*, **23**, 145–159.
- Sheppard, P. R., Tarasov, P. E., Graumlich, L. J. *et al.* (2004) Annual precipitation since 515 BCE reconstructed from living and fossil juniper growth of north-eastern Qinghai Province, China. *Clim. Dynam.*, **23**, 869–881.
- Shui T. (2001) *Papers on the Bronze Age Archaeology of North-west*. Beijing: China Science Press, p. 25 (in Chinese).
- Shukla, J. and Paolina, D. A. (1983) The Southern Oscillation and long range forecasting of the summer monsoon rainfall over India. *Mon. Wea. Rev.*, **111**, 1830–1837.
- Siddall, M., Rohling, E. J., Almogi-Labin, A. *et al.* (2003) Sea-level fluctuations during the last glacial cycle. *Nature*, **423**, 583–588.
- Sikka, D. R. and Gadgil, S. (1980) On the Maximum Cloud Zone and the ITCZ over Indian longitudes during the South-west Monsoon. *Mon. Wea. Rev.*, **108**, 1840–1853.
- Sinha, A., Cannariato, K. G., Stott, L. D. *et al.* (2005) Variability of South-west Indian summer monsoon precipitation during the Bølling-Allerød. *Geology*, **33**, 813–816.
- Sirocko, F. (1995) Abrupt change in monsoonal climate: evidence from the geochemical composition of Arabian Sea sediments. Habilitation Thesis, University of Kiel, p. 216.
- Sirocko, F., Sarnthein, M., Erlenkeuser, H. *et al.* (1993) Century-scale events in monsoonal climate over the last 24 000 years. *Nature*, **364**, 322–324.
- Sirocko, F., Garbe-Schönberg, D., McIntyre, A. and Molino, B. (1996) Teleconnections between the subtropical monsoons and high-latitude climates during the last deglaciation. *Science*, **272**, 526–529.
- Sirocko, F., Garbe-Schoenberg, D. and Devey, C. (2000) Processes controlling trace element geochemistry of Arabian Sea sediments during the last 25 000 years. *Global Planet. Change*, **26** (1–3), 217–303.
- Sontakke, N. A., Pant, G. B. and Singh, N. (1993) Construction of all-India summer monsoon rainfall series for the period 1844–1991. *J. Climat.*, **6**, 1807–1811.
- Spicer, R. A., Harris, N. B. W., Widdowson, M. *et al.* (2003) Constant elevation of southern Tibet over the past 15 million years. *Nature*, **421**, 622–624.
- Staubwasser, M., Sirocko, F., Grootes, P. M. and Segl, M. (2003) Climate change at the 4.2 ka BP termination of the Indus valley civilization and Holocene south Asian monsoon variability. *Geophys. Res. Lett.*, **30** (8), 1425, doi: 10.1029/2002GL016822.

- Stevens, T., Armitage, S. J., Lu, H. and Thomas, D. S. G. (2006) Sedimentation and diagenesis of Chinese loess: implications for the preservation of continuous, high-resolution climate records. *Geology*, **34**, 849–852.
- Stott, L., Poulsen, C., Lund, S. and Thunell, R. (2002) Super ENSO and global climate oscillations at millennial timescales. *Science*, **297**, 222–226.
- Stuiver, M. and Braziunas, T. F. (1993) Sun, ocean, climate and atmospheric $^{14}\text{CO}_2$: an evaluation of causal and spectral relationships. *The Holocene*, **3**, 289–305.
- Stuiver, M. and Grootes, P. M. (2000) GISP2 oxygen isotope ratios. *Quat. Res.*, **53**, 277–284.
- Sun, D. (2004) Monsoon and westerly circulation changes recorded in the late Cenozoic aeolian sequences of northern China. *Global Planet. Change*, **41**, 63–80.
- Sun, D. H., Liu, T. S., Chen, M. Y. and An, Z. S. (1997) Magnetostratigraphy and climate implications of the Red-Clay sequences in the Loess Plateau in China. *Sci. in China*, **27**, 265–270.
- Sun, D. H., Shaw, J., An, Z. S., Chen, M. Y. and Yue, L. P. (1998) Magnetostratigraphy and paleoclimatic interpretation of continuous 7.2 Ma late Cenozoic Eolian sediments from the Chinese Loess Plateau. *Geophys. Res. Lett.*, **25**, 85–88.
- Sun, X. and Li, X. (1999) Pollen records of the last 37 ka in deep-sea core 17940 from the northern slope of the South China Sea. *Mar. Geol.*, **156**, 227–244.
- Sun, X. and Wang, P. (2005) How old is the Asian monsoon system? Palaeobotanical records from China. *Palaeogeogr., Palaeoclim., Palaeoecol.*, **222**, 181–222.
- Sun, Y. and An, Z. (2004) An improved comparison of Chinese loess with deep-sea $\delta^{18}\text{O}$ record over the interval 1.6–2.6 Ma. *Geophys. Res. Lett.*, **31**, 13.
- Suzuki, H. (1978) *Ideas of the Forest and Ideas of the Desert*. Tokyo: NHK Books, p. 222.
- Swain, A. M., Kutzbach, J. E. and Hastenrath, S. (1983) Estimates of Holocene precipitation for Rajasthan, India, based on pollen and lake-level data. *Quat. Res.*, **19**, 1–17.
- Tada, R., Irino, T. and Koizumi, I. (1999) Land-ocean linkages over orbital and millennial timescales recorded in late Quaternary sediments of the Japan Sea. *Paleoceanography*, **14**, 236–247.
- Tamburini, F., Adatte, T., Foellmi, K., Bernasconi, S. M. and Steinmann, P. (2003) Investigating the history of East Asian monsoon and climate during the last glacial-interglacial period (0–140,000 years); mineralogy and geochemistry of ODP Sites 1143 and 1144, South China Sea. *Mar. Geol.*, **201**, 147–168.
- Tapponnier, P., Xu Z., Roger, F. *et al.* (2001) Oblique stepwise rise and growth of the Tibet Plateau. *Science*, **294**, 1671–1677.
- Thamban, M., Rao, V. P., Schneider, R. R. and Grootes, P. M. (2001) Glacial to Holocene fluctuations in hydrography and productivity along the south-western continental margin of India. *Palaeogeogr., Palaeoclimatol., Palaeoecol.*, **165**, 113–127.
- Thiede, R. C., Bookhagen, B., Arrowsmith, J. R., Sobela, E. R. and Strecker, M. R. (2004) Climatic control on rapid exhumation along the Southern Himalayan Front. *Earth Planet. Sci. Lett.*, **222**, 791–806.
- Thiry, M. (2000) Palaeoclimatic interpretation of clay minerals in marine deposits: an outlook from the continental origin. *Earth Sci. Rev.*, **49**, 201–221.

- Thompson, L. G., Mosley-Thompson, E., Davis, M. E. *et al.* (1989) 100,000 year climate record from Qinghai-Tibetan Plateau ice cores. *Science*, **246**, 474-477.
- Thompson, L. G., Mosley-Thompson, E., Davis, M. *et al.* (1993) "Recent warming"; ice core evidence from tropical ice cores with emphasis on Central Asia. *Global Planet. Change*, **7**, 145-156.
- Thompson, L. G., Yao, Y., Davis, M. E. *et al.* (1997) Tropical climate instability: the last glacial cycle from a Qinghai-Tibetan ice core. *Science*, **276**, 1821-1825.
- Thompson, L. G., Yao, T., Mosley-Thompson, E. *et al.* (2000) A high-resolution millennial record of the South Asian Monsoon from Himalayan ice cores. *Science*, **289**, 1916-1919.
- Tomczak, M. and Godfrey, J. S. (1994) *Regional Oceanography: An Introduction*. Oxford: Pergamon Press, p. 422.
- Torrence, C. and Webster, P. J. (1999) Interdecadal changes in the ENSO-Monsoon System. *J. Clim.*, **12**, 2679-2690.
- Tosi, M. (1975) The dialectics of state formation in Mesopotamia, Iran, and central Asia. *Dialect. Anthropol.*, **1**, 173-180.
- Treloar, P. J., Rex, D. C., Guise, P. G. *et al.* (1989) K-Ar and Ar-Ar geochronology of the Himalayan collision in NW Pakistan: constraints on the timing of suturing, deformation, metamorphism and uplift. *Tectonics*, **8**, 881-909.
- Treydte, K. S., Schleser, G. H., Helle, G. *et al.* (2006) The twentieth century was the wettest period in northern Pakistan over the past millennium. *Nature*, **440**, 1179-1182.
- Turner, S., Hawkesworth, C., Liu, J. *et al.* (1993) Timing of Tibetan uplift constrained by analysis of volcanic rocks. *Nature*, **364**, 50-54.
- Underhill, A. P. (1991) Pottery production in chiefdoms: the Longshan period in northern China. *World Archaeol.*, **23**, 12-27.
- Underhill, P. A., Passarino, G., Lin, A. A. *et al.* (2001) The phylogeography of Y chromosome binary haplotypes and the origins of modern human populations. *Ann. Human Genet.*, **65**, 43-62.
- Vail, P. R., Mitchum, R. M. and Thompson, S. (1977) Seismic stratigraphy and global changes of sea level; Part 4; global cycles of relative changes of sea level. In *Seismic Stratigraphy, Applications to Hydrocarbon Exploration*, ed. C. E. Payton. *Mem., Amer. Assoc. Petrol. Geol.*, **26**, 83-97.
- Van Campo, E. (1991) Pollen transport into Arabian Sea sediments. *Proc. Ocean Drill. Prog., Sci. Res.*, **117**, College Station, TX: Ocean Drilling Program, 277-281.
- Van Campo, E., Duplessy, J. C. and Rossignol-Strick, M. (1982) Climatic conditions deduced from 150 000 yr oxygen isotope-pollen record from the Arabian sea. *Nature*, **296**, 56-59.
- Vannay, J. C., Sharp, Z. D. and Grasemann, B. (1999) Himalayan inverted metamorphism constrained by oxygen isotope thermometry. *Contrib. Mineral. Petrol.*, **137**, 90-101.
- Von Rad, U., Schulz, H., Riech, V. *et al.* (1999) Multiple monsoon-controlled breakdown of oxygen-minimum conditions during the past 30 000 years documented in laminated sediments off Pakistan. *Palaeogeog., Palaeoclim., Palaeoeco.*, **152**, 129-161.

- Walker, C. B., Searle, M. P. and Waters, D. J. (2001) An integrated tectonothermal model for the evolution of the High Himalaya in western Zaskar with constraints from thermobarometry and metamorphic modeling. *Tectonics*, **20**, 810-833.
- Wang, B., Clemens, S. and Liu, P. (2003a) Contrasting the Indian and East Asian monsoons: implications on geologic timescale. *Mar. Geol.*, **201**, 5-21.
- Wang, J., Wang, Y., Liu, Z., Li, J. and Xi, P. (1999c) Cenozoic environmental evolution of the Qaidam Basin and its implications for the uplift of the Tibetan Plateau and the drying of Central Asia. *Palaeogeog., Palaeoclim., Palaeoeco.*, **152**, 37-47.
- Wang, L., Sarnthein, M., Erlenkeuser, H. *et al.* (1999a) East Asian monsoon climate during the late Pleistocene: high-resolution sediment records from the South China Sea. *Mar. Geol.*, **156**, 245-284.
- Wang, L., Sarnthein, M., Erlenkeuser, H. *et al.* (1999b) Holocene variations in Asian monsoon moisture; a bidecadal sediment record from the South China Sea. *Geophys. Res. Lett.*, **26**, 2889-2892.
- Wang, P. (2004) Cenozoic deformation and the history of sea-land interactions in Asia. In *Continent-Ocean Interactions Within East Asian Marginal Seas*, ed. P. D. Clift, W. Kuhnt, P. Wang and D. E. Hayes, Washington D. C.: American Geophysical Union, *Geophys. Monogr. Ser.* **149**, pp. 1-22.
- Wang, P., Zhao, Q., Jian, Z. *et al.* (2003b). Thirty million year deep-sea records in the South China Sea. *Chinese Sci. Bull.*, **48**, 2524-2535.
- Wang, P., Tian J., Cheng X., Liu C. and Xu J. (2003c) Carbon reservoir changes preceded major ice-sheet expansion at the mid-Brunhes event. *Geology*, **31**, 239-242.
- Wang, R. and Abelmann, A. (2002) Radiolarian responses to paleoceanographic events of the southern South China Sea during the Pleistocene. *Mar. Micropaleo.*, **46**, 25-44.
- Wang, R. L., Scarpitta, S. C., Zhang, S. C. and Zheng, M. P. (2002) Later Pleistocene/Holocene climate conditions of Qinghai-Xizhang Plateau (Tibet) based on carbon and oxygen stable isotopes of Zabuye Lake sediments. *Earth Planet. Sci. Lett.*, **203**, 461-477.
- Wang, Y. J., Cheng, H., Edwards, R. L. *et al.* (2001a) A high-resolution absolute-dated late Pleistocene Monsoon record from Hulu Cave, China. *Science*, **294**, 2345-2348.
- Wang, Y., Cheng, H., Edwards, R. L. *et al.* (2005) The Holocene Asian monsoon; links to solar changes and North Atlantic climate. *Science*, **308**, 854-857.
- Wang, Y., Deng, T. and Biasatti, D. (2006) Ancient diets indicate significant uplift of southern Tibet after ca. 7 Ma. *Geology*, **34**, 309-312.
- Weber, M. E., Wiedicke, M. H., Kudrass, H. R., Huebscher, C. and Erlenkeuser, H. (1997) Active growth of the Bengal Fan during sea-level rise and highstand. *Geology*, **25**, 315-318.
- Webster, P. J. (1987) The elementary monsoon. In *Monsoons*, ed. J. S. Fein and P. L. Stephens, New York: John Wiley, pp. 3-32.
- Webster, P. J., Magana, V. O., Palmer, T. N. *et al.* (1998) Monsoons: processes, predictability, and the prospects for prediction, in the TOGA decade. *J. Geophys. Res.*, **103**, 14 451-14 510.
- Webster, P. J., Clark, C., Chirikova, G. *et al.* (2002) The Monsoon as a self-regulating coupled ocean-atmosphere system. In *Meteorology at the Millennium*, ed. R. P. Pearce, San Diego: Academic Press, *International Geophysical Series*, vol. **83**, 198-219.

- Webster, P. J., Holland, G. J., Curry, J. A. and Chang, H.-R. (2005) Changes in tropical cyclone number, duration, and intensity in a warming environment. *Science*, **309** (5742), 1844–1846.
- Weiss H., Courty M. A. and Wetterstrom W. (1993) The genesis and collapse of third millennium north Mesopotamian civilization. *Science*, **261**, 995–1004.
- Whipple, K. X., Kirby, E. and Brocklehurst, S. H. (1999) Geomorphic limits to climate-induced increases in topographic relief. *Nature*, **401**, 39–43.
- White, N. M., Pringle, M., Garzanti, E. *et al.* (2002) Constraints on the exhumation and erosion of the High Himalayan Slab, NW India, from foreland basin deposits. *Earth Planet. Sci. Lett.*, **195**, 29–44.
- Williams, H., Turner, S., Kelley, S. and Harris, N. (2001) Age and composition of dikes in southern Tibet: new constraints on the timing of east–west extension and its relations to postcollisional volcanism. *Geology*, **29**, 339–342.
- Williams, H. M., Turner, S. P., Pearce, J. A., Kelley, S. P. and Harris, N. B. W. (2004) Nature of the source regions for post-collisional, potassic magmatism in Southern and Northern Tibet from geochemical variations and inverse trace element modeling. *J. Petrol.*, **45**, 555–607.
- Wilson, R. J. S., Luckman, B. H. and Esper, J. A. (2005) 500-year dendroclimatic reconstruction of spring/summer precipitation from the lower Bavarian forest region, Germany. *Int. J. Climat.*, **25**, 611–630.
- Wobus, C., Heimsath, A., Whipple, A. and Hodges, K. (2005) Active out-of-sequence thrust faulting in the central Nepalese Himalaya. *Nature*, **434**, 1008–1011.
- Wolfe, J. A., Forest, C. E. and Molnar, P. (1998) Paleobotanical evidence of Eocene and Oligocene paleoaltitudes in midlatitude western North America. *Geol. Soc. Amer. Bull.*, **110**, 664–678.
- Woodruff, F. and Savin, S. (1989) Miocene deepwater oceanography. *Paleoceanography*, **4**, 87–140.
- Woodruff, F. and Savin, S. M. (1991) Mid-Miocene isotope stratigraphy in the deep-sea: high resolution correlations, paleoclimatic cycles, and sediment preservation. *Paleoceanography*, **6**, 755–806.
- Woodruff, F., Savin, S. M. and Abel, L. (1990) Miocene benthic foraminifer oxygen and carbon isotopes, Site 709, Indian Ocean. *Proc. Ocean Drill. Prog., Sci. Res.*, **115**, College Station, TX: Ocean Drilling Program, pp. 519–528.
- Wu, G., Pan, B., Guan, Q. and Xia, D. (2005) Terminations and their correlation with insolation in the Northern Hemisphere; a record from a loess section in north-west China. *Palaeogeog., Palaeoclim., Palaeoeco.*, **216**, 267–277.
- Xiao, J. L. and An, Z. S. (1999) Three large shifts in East Asian monsoon circulation indicated by loess–Paleosol sequences in China and late Cenozoic deposits in Japan. *Palaeogeog., Palaeoclim., Palaeoeco.*, **154**, 179–189.
- Xiao, J. L., Inouchi, Y., Kumai, H. *et al.* (1997) Eolian quartz flux to Lake Biwa, central Japan over the past 145 000 years. *Quat. Res.*, **48**, 48–57.
- Xiao, J. L., An, Z. S., Liu, T. S. *et al.* (1999) East Asian monsoon variation during the last 130 000 years; evidence from the Loess Plateau of central China and Lake Biwa of Japan. *Quat. Sci. Rev.*, **18**, 147–157.

- Xie, P. and Arkin, P. A. (1997) Global precipitation: a 17-year monthly analysis based on gauge observations, satellite estimates and numerical model outputs. *Bull. Amer. Meteor. Soc.*, **78**, 2539–2558.
- Xie, S.-P., Xu, H., Saji, N. H., Wang, Y. and Liu, W. T. (2006) Role of narrow mountains in large-scale organization of Asian monsoon convection. *J. Clim.*, **19**, 3420–3429.
- Xu, R. (1979) Discovery of *Glossopteris* flora in southern Tibet and its significance to geology and paleogeography. In *A Report of the Scientific Expedition in the Mount Everest Region; 1975*, Beijing, China: Sci. Press, pp. 77–88.
- Yan, F., Ye, Y. and Mai, X. (1983) The sporo-pollen assemblage in the Luo4 drilling of Lop Lake in Uygur Autonomous Region of Xinjiang and its significance. *Seismo. Geo.*, **5**, 75–80 (in Chinese).
- Yancheva, G., Nowaczyk, N. R., Mingram, J. *et al.* (2007) Influence of the intertropical convergence zone on the East Asian monsoon. *Nature*, **445**, 74–77.
- Yang, F., Ma, Z. Q., Xu, T. C. and Ye, S. T. (1992) A Tertiary paleomagnetic stratigraphic profile in Qaidam basin (in Chinese). *Acta Pet. Sin.*, **13** (2), 97–101.
- Yang, J., Chen, J., An, Z. *et al.* (2000) Variations in $^{87}\text{Sr}/^{86}\text{Sr}$ ratios of calcites in Chinese loess; a proxy for chemical weathering associated with the East Asian summer monsoon. *Palaeogeog., Palaeoclim., Palaeoeco.*, **157**, 151–159.
- Yasuda, Y. (2004) Monsoons and religions. In *Monsoon and Civilization*, ed. Y. Yasuda and V. Shinde. New Delhi: Lustre Press, pp. 319–338.
- Yasunari, T. (1980) A quasi-stationary appearance of 30 to 40 day period in the cloudiness fluctuations during the summer monsoon over India. *J. Meteor. Soc. Japan*, **58**, 225–229.
- Yasunari, T. (1981) Structure of an Indian Summer monsoon system with around 40-day period. *J. Meteor. Soc. Japan*, **59**, 336–354.
- Yin, A., Kapp, P. A., Murphy, M. A. *et al.* (1999) Significant late Neogene east–west extension in northern Tibet. *Geology*, **27**, 787–790.
- Yoshikawa, S. and Inouchi, Y. (1991) Tephrostratigraphy of the Takashima-oki boring core samples from Lake Biwa, central Japan. *Earth Sci. (Chikyu Kagaku)*, **45**, 81–100.
- Yoshikawa, S. and Inouchi, Y. (1993) Middle Pleistocene to Holocene explosive volcanism revealed by ashes of the Takashima-oki core samples from Lake Biwa, central Japan. *Earth Sci. (Chikyu Kagaku)*, **47**, 97–109.
- Young, T. C. (1995) The Uruk World System: the dynamics of expansion of Early Mesopotamian civilization. *Bull. Amer. Sch. Orient. Res.*, **297**, 84–85.
- Zachos, J., Pagani, M., Sloan, L., Thomas, E. and Billups, K. (2001) Trends, rhythms and aberrations in global climate 65 Ma to Present. *Science*, **292**, 686–693.
- Zahn, R. (2003) Monsoon linkages. *Nature*, **421**, 324–325.
- Zeitler, P. K., Koons, P. O., Bishop, M. P. *et al.* (2001) Crustal reworking at Nanga Parbat, Pakistan; metamorphic consequences of thermal-mechanical coupling facilitated by erosion. *Tectonics*, **20**, 712–728.
- Zhang, P., Molnar, P. and Downs, W. R. (2001) Increased sedimentation rates and grain sizes 2–4 Myr ago due to the influence of climate change on erosion rates. *Nature*, **410**, 891–897.

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- Zhao, J., Wang, Y., Collerson, K. D. and Gagan, M. K. (2003) Speleothem U-series dating of semi-synchronous climate oscillations during the last deglaciation. *Earth Planet. Sci. Lett.*, **216**, 155–161.
- Zhao, Q., Wang, P., Cheng, X. *et al.* (2001a) A record of Miocene carbon excursion in the South China Sea. *Sci. China, Ser. D*, **44**, 943–951.
- Zhao, Q., Wang, J., Cheng, X. *et al.* (2001b) Neogene oxygen isotopic stratigraphy, ODP Site 1148, northern South China Sea. *Sci. China, Ser. D*, **44**, 934–942.
- Zhao, W. L. and Morgan, W. J. P. (1987) Injection of Indian crust into Tibetan lower crust; a two-dimensional finite element model study. *Tectonics*, **6**, 489–504.
- Zheng, H., Powell, C. M., An, Z., Zhou, J. and Dong, G. (2000) Pliocene uplift of the northern Tibetan Plateau. *Geology*, **28**, 715–718.
- Zickfeld, K., Knopf, B., Petoukhov, V. and Schellnhuber, H. J. (2005) Is the Indian summer monsoon stable against global change? *Geophys. Res. Lett.*, **32**, L15707, doi: 10.1029/2005GL022771.
- Zielinski, G. A., Mayewski, P. A., Meeker, L. D. *et al.* (1996) Potential atmospheric impact of the Toba mega-eruption approximately 71 000 years ago. *Geophys. Res. Lett.*, **23** (8), 837–840.

Further reading

- Balsam, W., Ji, J. and Chen, J. (2004) Climatic interpretation of the Luochuan and Lingtai loess sections, China, based on changing iron oxide mineralogy and magnetic susceptibility. *Earth Planet. Sci. Lett.*, **223**, 335–348.
- Balsam, W., Ellwood, B. and Ji, J. (2005) Direct correlation of the marine oxygen isotope record with the Chinese Loess Plateau iron oxide and magnetic susceptibility records. *Palaeogeog., Palaeoclim., Palaeoeco.*, **221**, 141–152.
- Banakar, V. K., Galy, A., Sukumaran, N. P., Parthiban, G. and Volvaiker, A. Y. (2003) Himalayan sedimentary pulses recorded by silicate detritus within a ferromanganese crust from the central Indian Ocean. *Earth Planet. Sci. Lett.*, **205**, 337–348.
- Chakraborty, S. and Ramesh, R. (1993) Monsoon-induced sea surface temperature changes recorded in Indian corals. *Terra Nova*, **5**, 545–551.
- Charles, C. D., Hunter, D. E. and Fairbanks, R. G. (1997) Interaction between the ENSO and the Asian monsoon in a coral record of tropical climate. *Science*, **277**, 925–928.
- Chen, L. X. (1991) *East Asia Monsoon*. Beijing: Meteorology Press of China, pp. 1–262 (In Chinese).
- Clift, P. D. and Gaedicke, C. (2002) Accelerated mass flux to the Arabian Sea during the Middle-Late Miocene. *Geology*, **30**, 207–210.
- Davis, M. E., Thompson, L. G., Yao, T. and Wang, N. (2005) Forcing of the Asian monsoon on the Tibetan Plateau; evidence from high-resolution ice core and tropical coral records. *J. Geophys. Res.*, **110**, D4.
- Fluteau, F. (2003) Earth dynamics and climate changes. *Comp. Rend., Acad. Sci., Geosci.*, **335**, 157–174.
- Glennie, K. W., Singhvi, A. K., Lancaster, N. and Teller, J. T. (2002) Quaternary climatic changes over southern Arabia and the Thar Desert, India. In: *The Tectonic and Climatic Evolution of the Arabian Sea region*, ed. P. D. Clift, D. Kroon, C. Gaedicke and J. Craig. *Geol. Soc., Lond., Spec. Publ.*, **195**, 301–316.

- Goodbred, S. L. (2003) Response of the Ganges dispersal system to climate change; a source-to-sink view since the last interstade. *Sed. Geol.*, **162**, 83–104.
- Ji, J., Chen, J., Balsam, W. *et al.* (2004) High resolution hematite/goethite records from Chinese loess sequences for the last glacial–interglacial cycle; rapid climatic response of the east Asian monsoon to the tropical Pacific. *Geophys. Res. Lett.*, **31**, 3.
- Li, B., Jian, Z., Li, Q., Tian, J. and Wang, P. (2005) Paleooceanography of the South China Sea since the middle Miocene; evidence from planktonic foraminifera. *Mar. Micropaleo.*, **54**, 49–62.
- Liu, L., Chen, J., Ji, J. and Chen, Y. (2004a) Comparison of paleoclimatic change from Zr/Rb ratios in Chinese loess with marine isotope records over the 2.6–1.2 Ma B. P. interval. *Geophys. Res. Lett.*, **31**, L15204, doi: 10.1029/2004GL019693.
- Loschnigg, J. and Webster, P. J. (2000) A coupled ocean–atmosphere system of SST regulation for the Indian Ocean. *J. Clim.*, **13**, 3342–3360.
- Lu, H., Zhang, F. and Liu, X. (2003) Patterns and frequencies of the East Asian winter monsoon variations during the past million years revealed by wavelet and spectral analyses. *Global Planet. Change*, **35**, 67–74.
- Ma, Y., Fang, X., Li, J., Wu, F. and Zhang, J. (2004) Vegetational and environmental changes during late Tertiary–early Quaternary in Jiuxi Basin. *Sci. China, Ser. D, Earth Sci.*, **34**, 107–116.
- Naidu, P. D. and Malmgren, B. A. (1995) A 2 200 years periodicity in the Asian monsoon system. *Geophys. Res. Lett.*, **22**, 2361–2364.
- Qiao, Q. M. and Zhang, Y. G. (1994) *Climatology of Tibet Plateau*. Beijing: Meteorology Press of China, pp. 1–250.
- Ruddiman, W. F. and Kutzbach, J. E. (1990) Late Cenozoic uplift and climate change. *Trans. R. Soc. Edin. Earth Sci.*, **81**, 301–314.
- Savidge, G., Elliott, A. E. and Hubbard, L. (1992) The monsoon induced upwelling system of the southern coast of Oman. *Mar. Geol.*, **104**, 290–291.
- Schulz, H., von Rad, U. and Ittekkot, V. (2002) Planktic foraminifera, particle flux and oceanic productivity off Pakistan, NE Arabian Sea; modern analogues and application to the palaeoclimatic record. In: *The Tectonic and Climatic Evolution of the Arabian Sea Region*, ed. P. D. Clift, D. Kroon, C. Gaedicke and J. Craig. Geol. Soc., Lond., Spec. Publ., **195**, 499–516.
- Tian, J., Wang, P., Cheng, X. and Li, Q. (2002) Astronomically tuned Plio–Pleistocene benthic $\delta^{18}\text{O}$ record from South China Sea and Atlantic–Pacific comparison. *Earth Planet. Sci. Lett.*, **203**, 1015–1029.
- Tudhope, A. W., Lea, D. W., Shimmield, G. B., Chilcott, C. P. and Head, S. (1996) Monsoon climate and Arabian Sea coastal upwelling recorded in massive corals from southern Oman. *Palaeos*, **11**, 347–361.
- Van Campo, E. (1986) Monsoon fluctuations in two 20,000-yr B. P. oxygen-isotope/pollen records off southwest India. *Quat. Res.*, **26**, 376–388.
- Wang, P., Prell, W., Blum, P., *et al.* (2001b) *Proc. ODP, Init. Repts.*, **184**, College Station, TX: Ocean Drilling Program.

- Webster, P. J. and Chou, L. C. (1980) Seasonal structure of a simple monsoon system. *J. Atmos. Sci.*, **37**, 354–367.
- Yuan, D., Cheng, H., Edwards, R. L. *et al.* (2004) Timing, duration, and transitions of the last interglacial Asian monsoon. *Science*, **304**, 575–578.
- Zheng, H., Powell, C. M., Rea, D. K., Wang, J. and Wang, P. (2004) Late Miocene and mid-Pliocene enhancement of the east Asian monsoon as viewed from the land and sea. *Global Planet. Change*, **41**, 147–155.